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5.1.6 Compugen Ltd

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Minimum
Maximum
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Maximum Match 10
Listing first 45
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Perfect score:
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Match
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pir2: *
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Ig kappa chain v-
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A; Molecule type: protein
A; Residues: 1-108 < GON>
C; Superfamily: immunoglobulin V region;

A;Accession: C30608 A;Status: preliminary C; Accession: C30608 R; Goni, F.R.; Chen,

P.P.;

McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson,

of human

IgM

D.; So

RESULT 1

Ig kappa chain V-III region (Pie) -

;Species: Homo sapiens (man) ;Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 21-Jan-2000

human (fragment)

J. Immunol. 142, 3158-3163, 1989
A;Title: Structural and idiotypic characterization of the L chains
A;Reference number: A30601; MUID:89215279; PMID:2496160

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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
488.5	491	491	491	492	500	501.5	501.5	505	505.5	506	507	507.5	509	509	513
87.1	87.5	87.5	87.5	87.7	89.1	89.4	89.4	90.0	90.1	90.2	90.4	90.5	90.7	90.7	91.4
111	215	116	96	108	109	129	104	118	108	109	130	110	215	108	109
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S23628	A23746	B27594	A30601	833988	S47181	\$40325	PH0964	T03036	E30609	KGHUGO	S20637	S44120	JE0242	K3HUB6	F44151
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ALIGNMENTS

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A;Cross-references: GDB:136266
A;Map position: 2p12-2p11
C;Complex: An immunoglobulin heterotetramer subunit consists of two ide hain disulfide bonds. In some cases, such as IgA and IgM, the subunits C;Superfamily: immunoglobulin V region; immunoglobulin homology
                                                                                                                                                                          R;Kipps, T.J.; Tomhave, E.; Chen, P.F.; Carbou, J.E.

J. Exp. Med. 167, 840-852, 1988

J. Exp. Med. 167, 840-852, 1988

A;Title: Autoantibody-associated kappa light chain variable region gene expressed in

A:Reference number: PL0021; MUID:88171307; PMID:3127527
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A;Residues: 1-129 <KIP>
C;Comment: The protein
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Best Local S
Matches 106
                                                                                                                                                                                                                                                                           g kappa chain precursor V-III region (Hic) - human
;Species: Homo sapiens (man)
;Date: 30-Jun-1990 #sequence_revision 30-Jun-1990 #text_change 21-Jan-2000
;Accession: PL0021
                                                                                                               Genetics:
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98.1%;
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                                                                                                                              surface
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J. Immunol. 142, 3158-3163, 1989
A;Title: Structural and idiotypic characterization of the L chains of human IgM autoant.
A;Raferepace number: A30601, MUID:89215279; PMID:2496160
A;Accession: B30601
                                                                                                                                              C;Accession: B30601
R;Goni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson,
                                                                                                                                                                                                                                           Ig kappa chain V-III region (Glo) - human (fragment)
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A; Residues: 1-109 <GON2>
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R;Goni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson, R. Immunol. 142, 3158-3163, 1999

A;Title: Structural and idiotypic characterization of the L chains of human IgM A;Reference number: A30601; MUID:89215279; PMID:2496160

A;Accession: H30601
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                                                 /Status: preliminary
                                                                                                                                                                                                   ;Species: Homo sapiens (man);Date: 29-Jun-1989 #sequence
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|Keywords: heterotetramer, immunoglobulin
|16-91/Domain: immunoglobulin homology < NM+>
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/1-20/Domain: signal sequence #status predicted <SIG>
/21-129/Product: Ig kappa chain V-III region (Hic) #status predicted <MAT>
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Best Local
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pate: 29-Jun-1989 #sequence_revision 29-Jun-1989
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;118-129/Region: J segment (JK1)
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                                                                                                                                                                                            #sequence_revision 29-Jun-1989 #text_change 21-Jan-2000
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97.2%;
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Pred. No. 1.1e-38;
3; Mismatches 0
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Pred. No. 3.9e-39;
1; Mismatches 1
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F;16-91/Domain:
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A;Molecule type: protein
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                                                                                                                                                                                                                                                                                                                  J. Immunol. 142, 3158-3163, 1989
A, Title: Structural and idiotypic characterization of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Residues: 1-109 <GON>
C;Superfamily: immunoglobulin V region; immunoC;Keywords: heterotetramer; immunoglobulin F;16-91/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                       A; Residues: 1-109 <GON>
                                                                                                                                                                                                                                                                                                                                                           C; Accession: C30601
R; Goni, F.R.; Chen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Superfamily: immunoglobulin V region; immunoglobulin C;Keywords: heterotetramer; immunoglobulin F;16-91/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                     Ig kappa chain V-III region (Pay) -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: D30601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                     ;Species: Homo sapiens (man)
;Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 21-Jan-2000
                                                                                                                                                                               Superfamily: immunoglobulin V region; Keywords: heterotetramer; immunoglobul
                                                                                                                           Query Match
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Best Local :
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Keywords: heterotetramer; immunoglobulin
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Matches 106;
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                                                                                                          Local
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                                1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
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                                                                                                      Similarity
EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQRPGQAPRLLIYGASSRATGIP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPLTFGQGTKVEIK
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                                                                                                                                                           erotetramer; immunoglobul immunoglobulin homology
                                                                                    Conservative
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                                                                                                    96.6%;
97.2%;
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98.1%;
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98.1%;
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Pred. No. 2.3e
2; Mismatches
                                                                                    <u>ب</u>
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Pred. No. 1.5e-38;
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Pred. No. 1.3e-38;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                     human (fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                    DB 2;
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A;Title: Evidence for somatic selection of natur A;Reference number: PH0952; MUID:92202880; PMID:A;Accession: PH0963
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                                                                                                                                                                                                                                                                                                            A;Molecule type: DNA
A;Residues: 1-109 <M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (g kappa chain V region (G6+ CLL-SMI) -
1;Species: Homo sapiens (man)
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C;Species: Homo sapiens (man)
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Best Local S
Matches 105
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                                                                                                          24-34/Region: complementarity-determining 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Species: Homo sapiens (man)
;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 21-Jan-2000
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                                                                                                                                                                                             1-23/Region: framework :
                                                                                                                                                                                                                            Superfamily: immunoglobulin V region; immunoglobulin Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                            Status: nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in disulfide bonds. In some cases, such as IgA and IgM, the subunits associate into journal subunits associate into journal subunits associate into journal in the subunits associate into journal in the subunity in the subu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Accession: PH0963
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Complex: An immunoglobulin heterotetramer subunit
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                                                                                                                                                                                                                                                                                                        1-109 <MAR>
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                                                                                                                                                    immunoglobulin homology <IMM>
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                                                                                                                                                                                                                                                                                                                                                                        acid sequence not shown
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97.2%;
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Pred. No. 3.2e-38;
2; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    natural autoantibodies PMID:1552291
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                                                                                                                                             C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;16-91/Domain: immunoglobulin homology <IMM>
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A;Accession: A30608
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R;Goni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.;
J. Immunol. 142, 3158-3163, 1989
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                                                                                                                                                                                                          A; Molecule type: protein A; Residues: 1-109 <GON>
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C;Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 21-Jan-2000
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Matches 104
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;Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 21-Jan-2000
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                                                                        Score 537; DB 2;
Pred. No. 5.9e-38;
3; Mismatches 1
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Pred. No. 4.8e-38;
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RESULT 13
846369
           IG light chain variable region (VJ) - human
C;Species: Homo sapiens (man)
C;Date: 07-May-1995 #sequence_revision 21-Jul-1995 #text_change 21-Jan-2000
C;Accession: S46369
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F; 16-91/Domain:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Immunol 142, 3158-3163, 1989

A;Title: Structural and idiotypic characterization of the L chains of human IgM

A;Reference number: A30601; MUID:89215279; PMID:2496160
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       submitted to the EMBL Data Library, Octobe A;Description: Molecular characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Mahmoudi, M.; Edwards, J.; Cairns,
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A; Residues: 1-129 < MAH>
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A;Accession: S49532
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Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 21-Jan-2000
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;Date: 01-Feb-1995 #sequence_revision 12-May-1995 #text_change 21-Jan-2000
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96.3%;
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Zouali,
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Pred. No. 7.1e-38;
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Pred. No. 6.8e-38;
2; Mismatches 2
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GDB: IGKV:

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Ig kappa chain V-III region (Sie) - human (tent: C;Species: Homo sapiens (man)
C;Date: 06-Jul-1982 #sequence_revision 06-Jul-19
C;Accession: A01892
R;Andrews, D.W.: Capra, J.D.
Biochemistry 20, 5816-5822, 1981
A;Title: Amino acid sequence of the variable real A;Reference number: A90450; MUID:82046598; PMID A;Accession: A01892
A;Molecule type: protein
A;Residues: 1-109 <AND>
C;Comment: This chain was isolated from an IgM variables: 1-109 <AND>
C;Cenetics:
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S38643
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A; Residues: 1-134 <BEN>
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C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jan-2000
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C;Superfamily: immunoglobulin
C;Keywords: immunoglobulin
F;36-111/Domain: immunoglobulin
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Pred. No. 8.6e-38;
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Pred. No. 8.3e-38;
4; Mismatches 1
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AC P18136;

PT 01-NOV-1990 (Rel. 16, Created)

DT 01-NOV-1990 (Rel. 16, Last sequence update)

DT 01-NOV-1990 (Rel. 16, Last sequence update)

DT 15-UUL-1999 (Rel. 18, Last annotation update)

DT 10-NOV-1990 (Rel. 16, Last annotation update)

DT 10-NOV-1990 (Rel. 16, Last annotation update)

DT 10-NOV-1990 (Rel. 16, Last annotation update)

DE 19 kappa chain V-III region HC. Chain varial

RR RP MEDLINE-88171307; PubMed=3127527;

RA Kipps T.J. Tomhave E. Chen P.P., Carson D.A.;

RR MEDLINE-88171307; PubMed=3127527;

RA Kipps T.J. Tomhave E. Chen P.P., Carson D.A.;

RR MEDLINE-88171307; PubMed=3127527;

RA Kipps T.J. Tomhave E. Chen P.P., Carson D.A.;

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RA Kipps T.J. Tomhave E. Chen P.P., Carson D.A.;

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RR MEDLINE-88171307; PubMed=3127527;

RA Kipps T.J. Tomhave E. Chen P.P., Carson D.A.;

RR MEDLINE-88171307; PubMed=3127527;

RR MEDLINE-8817111; HT S. COMPLEMENTARITY-DET FILL CHAIN V-II PubMed Tomhalin V region; Signal.

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Matches 106
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Kipps T.J., Tomhave E., Chen P.P., Carson D.A.;

"Autoantibody-associated kappa 119ht chain variable region gene expressed in chronic lymphocytic leukemia with little or no somati mutation. Implications for etiology and immunotherapy.";

J. Exp. Med. 167:400-852 (1988).

-I- DISEASE: THE PROTEIN IS ONE OF THE SURFACE IMMUNOGLOBULIN M AUTOANTIBODIES EXPRESSED IN PATIENTS WITH CHRONIC LYMPHOCYTIC
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COMPLEMENTARITY-DETERMINING-1.
FRANGWORK-2.
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KV3L HUMAN
KV1C HUMAN
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                                                                                                                                                                                                                                                                                 Length 129;
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Query Match

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Best Local S
Matches 95
               "Most kappa immunoglobulin mRNA in human a small family of germ-line V genes."; Nature 307:77-80(1984).
                                                                                                                                                                                                          Homo Bapiens (Human).
Bukaryota, Metazoa, Chordata,
Mammalia, Butheria, Primates,
                                                                                                                                                                                                                                                                                                                                                                                             KV3C F
PIR; A01894; K3HUNG
                                                                                                      SEQUENCE FROM N.A.
MEDLINE=84093600; PubMed=6419127;
Bentley D.L.;
                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                15-JUL-1986 (Rel. 01, Last sequence update)
                                                                                                                                                                                                                                                                                                                         21-JUL-1986
21-JUL-1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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NON TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. entities requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003006; Ig_MH
InterPro; IPR003596; Ig_v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; A01899; K3HU41.
HSSP; P01607; 1RBI.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE-86041852; Pu Klobeck H.G., Meindl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic Acids Res. 13:6499-6513(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Human immunoglobulin
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Pred. No. 2.1e
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BY SIMILARITY.
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Best Local S
Matches 91
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InterPro; IPR003596; I
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1
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                                                                                                                       DOMAIN
                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                 PIR; A01898; K3HUCL..
HSSP; P80362; 1WTL.
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                                                                                                                                                                                                                                                                                                                                         EMBL; M12740;
                                                                                                                                                                                                                                                                                                                                                                             or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Cloning and sequence determination of a human rh
light-chain gene.";
Proc. Natl. Acad. Sci. U.S.A. 83:2195-2199(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jirik F.R., Sorge J., Fo
Goldfien R., Carson D.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HUMAN
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SMART; SM00406; IGv; 1.
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V-III region CLL precursor (Rheumatoid factor).
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95.8%;
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                             FRAMEWORK-3.
COMPLEMENTARITY-DETERMINING-3
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FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
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                                                                                                                                                   CHAIN V-III REGION CLL
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.7e-42;
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P04433;
13-AUG-1987
13-AUG-1987
15-JUL-1999
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KV3F HUMAN
P01674;
21-JUL-1986
21-JUL-1986
16-OCT-2001
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NON TER
SEQUENCE
            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                     Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                           Ann. Immunol. (Paris) 127C:261
-i- MISCELLANCOUS: THIS CHAIN GLOBULIN ACTIVITY.
PIR; A01897; K3HUPM.
HSSP; P80362; 1WTL.
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                                                                                                                       MAMOH
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"The amino acid sequence of the variable regions of the light chains from two idiotypically cross reactive IgM anti-gamma globulins.";
Ann. Immunol. (Paris) 127C:261-271 (1976).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 NCBI_TaxID=9606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=76276460; PubMed=60899;
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                                           -AUG-1987 (Rel. 05, Created)
-AUG-1987 (Rel. 05, Last sequence update)
-JUL-1999 (Rel. 38, Last annotation update)
kappa chain V-III region VG precursor (Fra
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                                                                                                                                                                                       DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                 EIVMTQSPVTLSVSPGERATLSCRASQSISNSYLAWYQQXPSGSPRLLIYGASTRATGIP
                                                                                                                                                                                                                                       EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
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hain V-III region F
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                       Chordata;
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81.5%; Pred. No. 1.1e-40;
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Pred. No. 1e-41;
           Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                          PRT;
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RESULT 13
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=85087932; PubMe
Pech M., Zachau H.G.;
"Immunoglobulin genes o
within the VX locus.";
                                                                                                                                                                                                                                                                                                                                                                01-JAN-1988
01-APR-1988
15-JUL-1999
                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=86041854; PubMed=2997713;
MATAB P., Wills F., Gould H.;
"Detection of a unique human V ka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                  Submitted
                                        Marsh P.
                                                             REVISION
                                                                                                     Nucleic
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                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                      P06314;
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PIR; A01900; K3HUVG.
HSSP; P80362; 1WTL.
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SMART; SM00406; IGv;
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                                                                                                                                                                                                                                                                                                                                              kappa chain
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               (OCT-1986) to the EMBL/GenBank/DDBJ databases.
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el. 38, Last annotation
V-IV region B17 precurs
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Pred. No. 7.2
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FRAMEWORK.1.
COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK.2.
COMPLEMENTARITY-DETERMINING-2.
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COMPLEMENTARITY-DETERMINING-3
BY SIMILARITY.
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Catarrhini; Hominidae;
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                                                                                                                                            germline gene
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RESULT 14
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       EMBL; X02725; -; NOT PIR; A01901; K3HUVH.
                                          entities requires a license agreement (sor send an email to license@isb-sib.ch).
                                                                use by non-profit institutions as long modified and this statement is not removed.
                                                                          This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restricuse by non-profit institutions as long as its content is
                                                                                                                                                                                                                                                                                                                              KV3J_HUN
P04434;
                                                         entities
                                                                                                                                                                                          MEDLINE=85087932;
                                                                                                                                                                                                                                                                                                                                                      HUMAN
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                                                                                                                                         Nucleic Acids Res. 12:9229-9236(1984).
                                                                                                                                                                                                                                     nomo Baptens (noman).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                              Pech M.,
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SMART; SM00406; IG:
                                                                                                                                                                                                                            CBI_TaxID=9606;
                                                                                                                                                                                                                                                                        l3-AUG-1987 (Rel. 05, Created)
l3-AUG-1987 (Rel. 05, Last sequence update)
l5-UUL-1999 (Rel. 38, Last annotation update)
lg kappa chain V-III region VH precursor (Fragment).
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InterPro; IPR003596; Ig_v.
                                                                                                                                                            ach M., Zachau H.G.;
immunoglobulin genes of different subgroups are interdigitated
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Pred. No. 1.1
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BY SIMILARITY.
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COMPLEMENTARITY-DETERMINING-2.
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COMPLEMENTARITY-DETERMINING-1.
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                                                    (See http://www.isb-sib.ch/announce,
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-!- MISCELLANEOUS: THE C REGION OF THIS CHAIN HAS
-!- MISCELLANEOUS: THIS IS A BENCE-JONES PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "The primary structure of a monoclonic immunoglobulin-L-chain subgroup IV of the kappa type (Bence-Jones protein Len).", Hoppe-Seyler's Z. Physiol. Chem. 356:507-557(1975).
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01-OCT-1996 (Rel. 34, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
Ig kappa chain V-IV region Len.
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HSSP; P01607; 1REI.
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Schneider M., Hilschmann N.;
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Mammalia; Eutheria;
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InterPro; IPR003596;
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SMART; SM00406; IG
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                                      COMPLEMENTARITY-DETERMINING-3 FRAMEWORK-4.
BY SIMILARITY.
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Pred. No. 1e-36;
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BY SIMILARITY.
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FRAMEWORK-2.
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Catarrhini;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable region
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SMART; SM00406; IGv; 1.
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MEDLINE=98277139; Van der Merwe P.L.,
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Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo
MCBI_TaxID=9606;
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nterPro; IPR003596; Ig_v.
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AF035036; AAD56272.1; -.
                                                                   1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
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EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP
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109 AA; 11646 MW;
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                                                                                                                                       Score 530; DB 4;
Pred. No. 3.6e-49;
1; Mismatches 3
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SEQUENCE FROM N.A.
MEDLINE-98277139; PubMed=9614934;
MEDLINE-98277139; PubMed=9614934;
                                      Clin. Immunol. Immunopathol. 87:184-192(1998)
EMBL; AF035031; AAD56267.1; -.
HSSP; P80362; IWTL.
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Mammalia; Eutheria; Primates;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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InterPro; IPR003596; Ig_v.
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Wu X., Liu B., Van der Merwe P.L.
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SM00406; IGv; 1.
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EMBLrel. 19, Last annotation update)
immunoglobulin kappa chain variable
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Q9UL77;
Q9UL77;
01-MAY-2000 (TrEMBLrel. 1:
01-MAY-2000 (TrEMBLrel. 1:
01-DEC-2001 (TrEMBLrel. 1:
Nyosin-reactive immunoglo
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NON_TER
SEQUENCE
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MEDLINE=98277139; PubMed=9614934;
Wu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                     SMART;
                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606
                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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Ol-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Ol-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin kappa chain variable
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SMART; SM00406; IGv; 1.
NON_TER 1 1
NON_TER 108 108
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T; SM00406; IGv; 1
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                                                                                                                             DRFSGSGSGTDFTLTISRLEPEDFAVYYCOQYGS-SPWTFGQGTKVEIK 108
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81.7%;
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                                                                                                                                                                                                    Score 442; DB 4;
Pred. No. 9.2e-40;
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Pred. No. 3e-40;
                                                                                                                                                                                                                                   FB1E43E7C7AFACCC CRC64;
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EMBLrel. 13, Last sequence update)
EMBLrel. 19, Last annotation update)
immunoglobulin light chain variable

region

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RESULT 6
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Best Local S
Matches 77
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NON_TER
SEQUENCE
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
Liu B., Van der Merwe P.L.,
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SEQUENCE
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Q9UL79;
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MEDLINE=98277139; PubMed=9614934;
MEDLINE=1: D Van der Merwe P.L.,
                                                                                                                                                                                                                                        InterPro; IPR003006; Ig_MAC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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Mammalia; Eutheria; Primates;
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01-MAY-2000
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SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                              tetus."
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . Similarity 71.3 77; Conservative
                                                                                                             Similarity
                         EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SRFSGSGGTDFTLTISSLQPEDFATYYCQQSYSTSWTFGEGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DIQMTQSPSSLSASVGDRVTITCRASQSI-SSYLMWYQQKPGKAPNLLIYAASSLQSGVP 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
DÍVMTÓS PSILSASTODRVTISCRMSÓGI-SSYLÁWYÓ Ó KPEKÁ PELLÍYA ASTLOSGVP
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(TrEMBLrel. 19, Last annotation update)
tive immunoglobulin light chain variable
                                                                                      Conservative
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11787 MW;
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Primates;
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72.2%;
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                                                                                  Score 400.5; DB 4;
Pred. No. 2.5e-35;
1; Mismatches 18;
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Pred. No. 5.7
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Best Local
                                                                                                                                                                                                                                                                       UI-DEC-2001 (TIEMBLrel. 19, Created)
01-MAR-2002 (TIEMBLrel. 19, Last sequence update)
101-MAR-2002 (TIEMBLrel. 20, Last annotation update)
Anti-streptococcal/anti-myosin immunoglobulin kappa
variable region (Fragment)
Homo sapiens (Human)
Eukaryota; Metazos
                                           MEDIJINE=98375893; PubMed=9712075;
Adderson B.B., Shikhman A.R., Ward K.B., Cunningham M.W.;
Molecular analysis of polyreactive monoclonal antibodies from rheumatic carditis: human anti-N-acetylglucosamine/anti-myosin antibody V region genes.";
J. Immunol. 161:2020-2031(1998).
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01-MAY-2000
                                                                                                                                                                                                                                                        Eukaryota, Metazoa,
Mammalia, Eutheria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                      SEQUENCE FROM N.A.
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MEDLINE-98277139; Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
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InterPro; IPR003006;
InterPro; IPR003596;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Young D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fragment,
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                          U96396; AAB68785.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunol. Immunopathol.
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       IPR003006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108 108
108 AA; 11633 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                                        Chordata;
Primates;
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65.7%;
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Pred. No. 1.6e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87:184-192 (1998)
                                                                                                                                                                                                                                                           Craniata; Vo
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B7BEDC3E41FCCA37 CRC64;
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                                                                                                                                                                                                                                                           Vertebrata;
i; Hominidae;
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                                                                                                                                                                                                                                                                                   Euteleostomi;
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RESULT 10
Q92029
ID Q92029
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Q9UL81
ID Q9UI
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Best Local Similarity
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Best Local (
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                                                                              Q920E9
Q920E9;
Q920E0-2001
01-DEC-2001
01-MAR-2002
D1-MAR-2002
      Bukaryota,
                                                          Pterih-mimicking anti-idiotope
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NON TER
SEQUENCE
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NON_TER
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SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                     Mus musculus (Mouse)
                                           (Fragment)
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InterPro; IPR003596; Ig_v.
Pfam; PP00047; Ig; 1.
SMART; SM00406; IGv; 1.
NON TER 1
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01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
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Young D.C.;
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                                                                                                                                                                                                                                                                                             DRFSGSGSGIDFILTISRLEPEDFAVYYCOOYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                      DIOMTOS PSSLSAS VGDRVTITCKAS QSI-SNYLNWYOOK PGKAPNLLIYAAS SLOSGVP
                                                                                                                                                                                                                                                                                                                                                                            EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
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  Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              107
107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
107 AA;
                                             (TrEMBLrel. 19, Created)
(TrEMBLrel. 19, Last sequence update)
(TrEMBLrel. 20, Last annotation update)
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                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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11501 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 364; DB 4; Length 107; Pred. No. 2e-31; Indels
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Pred. No. 1.8e-33;
Craniata,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Eutele
Catarrhini; Hominidae; Homo.
                                                                                                                                                                   PRT;
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Vertebrata;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
Euteleostomi;
                                                          region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         region
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                                                                                                                                                                       Query Match
Best Local S
Matches 66
                                                                                                                                                                                                                                                                     Pfam; France Pfam; France Pfam; France Pfam; SM00409; IG; 2.
SMART; SM00407; IGC1; 1.
SMART; SM00410; IG like; 1.
SMART; SM00410; IG like; 1.
SMART; SM00290; IG_MHC; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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01-JUN-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q99M37
Q99M37;
                                                                                                                                                                                                                                                            PROSITE; PS00290;
Hypothetical prote
SEQUENCE 238 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-UIV-2001 (TrEMBLrel 17, Created)
01-UIV-2001 (TrEMBLrel 17, Last sequence update)
01-DEC-2001 (TrEMBLrel 19, Last annotation update)
Hypothetical 26.3 kDa protein.
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00047; ig; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Strausberg
Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  dssh;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Atkin J.D., Iape A., Jenning "Definition of the Idiotope in Mammalian Cells.";
Submitted (SEP-2000) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00047; ig; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria; Rodentia; Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                      nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AF307935; AAL09419.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
      80
                                            57
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BC002035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58
                                                                                                                                                                            66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                              DVVMTQTPLSLPVSLGDQASISCRSSQSIVHSNGNTYLEWYLQKPGQSPKLLIYKVSNRF
                                                                                                                      EIVLTQSPGTLSLSPGERATLSCRASQSV----SSSFLAWYQQKPGQAPRLLIYGASSRA
                             TGIPDRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVBIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
SGVPDRFSGSGSGTDFTLKISRVEAEDLGVYYCFQGSHVPYTFGSGTKLEIK 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : IPR003599;
: IPR003597;
: IPR003600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVPARFSGSGSGTDFTLNIHPVEREDAATYYCOHSRELPYTFGGGTKLEIK 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DIVLTQSPASLAVSLGQRATISCRASKSVSTSGYSYMHWYQQKPGQPPKLLIYLASNLES
                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR003596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      IPR003006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (JAN-2001)
                                                                                                                                                                                                                                                          al protein.
238 AA; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       111 AA;
                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAH02035.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12046 MW;
                                                                                                                                                                                                                                                          26344 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                             Ig.
Ig_c1.
Ig_like.
Ig_MHC.
Ig_v.
                                                                                                                                                                                       63.3%; Score 355; DB 1
58.9%; Pred. No. 5e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jennings I.G., Horaitis O.,
liotope of Pterin-Mimicking
                                                                                                                                                                       23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 360.5;
Pred. No. 4.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                          FB2B06A0B801330A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1:E46988AA6858526 CRC64;
                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 4.9e-31;
20;
                                                                                                                                                                                                             DB 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Muridae; Murinae;
                                                                                                                                                                       19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     databases
                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antibodies F
                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                               238;
                                                                                                                                                                     4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Expressed
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                                        108
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                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                  79
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RESULT
Q920E6
ID DT 000
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                                  Query Match
Best Local (
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Best Local 9
         Matches
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NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                    EMBL; AF307938; AAL09422
InterPro; IPR003006; Ig_
                                                                                                                                                                                                                                                                                                             Submitted (SEP-2000)
                                                                                                                                                                                                                                                                                                                                                                                                         Atkin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pterin-mimicking
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-2001
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9U410
Q9U410;
                                                                                                                                                                                                                                                                                                                                   Atkin J.D., Iape A., Jenning "Definition of the Idiotope in Mammalian Cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q920E6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF207620; AAF19434.1;
HSSP; P01679; 2FBJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schistosoma japonicum.";
Submitted (NOV-1999) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     variable region (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Monoclonal anti-idiotypic antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-2000 (TrEMBLrel 13,
01-MAY-2000 (TrEMBLrel 13,
01-DEC-2001 (TrEMBLrel 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Platyhelminthes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAY-2000
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Song X.T., Feng Z.Q., Qiu Z.N., Li Y.Q., Huang H.L.,

Amplification, cloning and sequence analysis of the

Amiable region gene of monoclonal anti-idiotypic ant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Schistosoma japonicum (Blood fluke).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CBI_TaxID=6182
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         Similarity
63; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VRFSGSGSGTSYSLTISRMEAEDAATYYCQQWTSYPFTFGSGTKLELK
                                                                                                                        109
109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       106 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel. 19, Createq)
(TrEMBLrel. 19, Last sequence update)
(TrEMBLrel. 20, Last annotation update)
ching anti-idiotope kappa chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
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                                                                                                                                                                                                                    , 61
                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11478 MW;
                                                                                                                              11943 MW;
                                                                                                                                                                                                                                       Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                      Jennings I.
diotope of P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63.1%;
                                                                                                                                                                                                                                                                                                          to the EMBL/GenBank/DDBJ databases
                                  58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18;
      Score 350.5;
Pred. No. 5.6e
22; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
ntibody NP30 immunoglobulin
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B; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 354;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; | Sciurognathi; Muridae;
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                                                                                                                           DAD3F98E05DD1501 CRC64;
                                                                                                                                                                                                                                                                                                                                                                   Pterin-Mimicking
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.6e-30;
es 22;
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; Murinae; Mus
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Best Local S
  Chen P.,
"Cloning
genes of
                                                                                                                                                                              01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-DEC-2001 (TrEMBLrel. 19,
Anti human TNF-alpha light
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SMART; SM00409; IG; 1.
SMART; SM00406; IGv; 1.
NON TER 134 134
                                                            SEQUENCE
                                                                                                                    Eukaryota, Metazoa,
Mammalia, Eutheria,
                                                                                                                                                                                                                                                                                    Q9ERZ9
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                                                                                                                                                              Mus musculus
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Submitted (JAN-2002) t
EMBL; AJ416331; CAC948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. STRAIN=BALB/C;
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Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                               NCBI_TaxID=10090;
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InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
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01-JUN-2002 (TrEMBLrel.
Anti-MOG Z12 variable li
ANTI-MOG KAPPA.
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  FROM N.A.

Deng J.B., Wang

and sequencing

and sequencing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               QIVLTQSPAIMSASPGEKVTMTCSASSSI--SYMHWYQQKPGTSPKRWIYDTSKLASGVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
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                                                                                                                                                              (Mouse).
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                                                                                                                    Chordata;
Rodentia;
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g Z.L., Han H., Su C.Z.;
of the light chain fragment
monoclonal antibody.";
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he EMBL/GenBank/DDBJ
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Sciurognathi; Muridae;
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Sciurognathi;
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Murinae; Mus
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RL J. Cell. Mol. Immunol. 12:21-26(1996).

RN [2]

RN [2]

RP SEQUENCE FROM N.A.

RA Chen P., Deng J.B., Wang Z.L., Han H., Yao L.B., Su C.Z.;

RT "Construction and sequencing of the single-chain antibody.";

RT 11 4 Chun i Ta Hsuch Hsuch Pao 19:373-376(1998).

RI T1 4 Chun i Ta Hsuch Hsuch Pao 19:373-376(1998).

RN [3]

RN SEQUENCE FROM N.A.

RP SEQUENCE FROM N.A.

RP SEQUENCE FROM N.A.

RA Chen P., Deng J.B., Wang Z.L., Han H., Yao L.B., Su C.Z.;

RL SUBmitted (WAY-2000) to the EMMIJ/GenBank/DDBJ databases.

REMBL; AF262753; AAG23804.1; -.

RA Chen P., Deng J.B., Wang Z.L., Han H., Yao L.B., Su C.Z.;

RI Submitted (WAY-2000) to the EMMIJ/GenBank/DDBJ databases.

REMBL; AF262753; AAG23804.1; -.

RA Chen P., Deng J.B., Wang Z.L., Han H., Yao L.B., Su C.Z.;

RI InterPro; IPR003596; Ig MC.

RI InterPro; IPR003596; Ig MC.

REMBL; AF262753; AAG23804.1; -.

REMBL; AAG2484.1; -.

REMBL; AAG2484.1; -.

REMBL; AAG2484.
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Search completed: June 3, 2003, 08:20:44 Job time: 55.8157 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

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No.
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Gapop 10.0 , Gapext 0.5
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AAR36277
AAB62770
AAM24101
AAG93666
ABB07231
AAU14461
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The kappa chain of
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WPI; 2000-442647/38 N-PSDB; AAA46865.

Hanson DC, Neveu MJ, Corvalan JR;

Mueller EE,

Hanke JH,

Gilman SC,

Davis CG;

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RESULT 2
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
Novel antibodies capable of binding cytotoxic T-lymphocyte antigen (CTLA)-4 containing specified heavy and light chain sequences, useful for treating, e.g. immune disorders -
                                                                                                                                                                                                                                                                                        Key
Peptide
                                                                                                                                   (PFIZ )
                                                                                                                                                                                                                                                                                                                                                  Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; in hyperimmunity disorder; autoimmune disease; diabetes; proliferative disorder; cancer; immunodeficient disord
                                                                                                                                                                                               23-DEC-1999;
                                                                                                                                                                                                                         29-JUN-2000.
                                                                                                                                                                                                                                                  WO200037504-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence represents a kappa chain of an antibody of the invention. The antibody is directed cytotoxic T-lymphocyte antigen (CTLA) 4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a R1-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune classes and graft rejection) and proliferative disorders (e.g. cancer). CTLA-4 stimulatory agents may be used to up-regulate immune system to up-regulate immunodeficient disorders.
                                                          N-PSDB;
                                                                                                          Hanson DC,
                                                                                                                                                                         23-DEC-1998;
                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                   The kappa chain of immunoglobulin clone 4.1.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                   03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY93729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY93729 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel antibodies capable of binding (CTLA) -4 containing specified heavy for treating, e.g. immune disorders
                                                       2000-442647/38.
DB; AAA46893.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           μ
                                                                                                                                 PFIZER INC.
ABGENIX INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EIVLTQSPGTLSLSPGERATLSCRASQSISSSFLAWYQQRPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fig lA;
                                                                                                         Neveu MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA,
                                                                                                                                                                         98US-0113647
                                                                                                                                                                                              99WO-US30895
                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                157pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein; 235
                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98.8%;
                                                                                                       Mueller EE,
                                                                                                                                                                                                                                                                        "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 554; DB 21;
Pred. No. 2.5e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                       Hanke JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytotoxic T-lymphocyte antigen and light chain sequences, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                     Gilman SC,
                                                                                                                                                                                                                                                                                                                                                   disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                            immune system;
                                                                                                      Davis
                                                                                                                                                                                                                                                                                                                                                              rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                     ဌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
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Best Local S
Matches 105
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                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Fig 22g; 157pp; English.
                                                                                                                                                    105;
     81
                                        61
                                                                           21
                                                                                                               μ.
                                                                                                                                                                       Similarity
DRFSGSGGTDFTUTISRLEPEDFAVYYCQQYGTSPWTFGQGTKVEIK 128
                            DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                       EIVLTOSPGTLSLSPGERATLSCRASOSISSSFLAWYQQRPGQAPRLLIYGASSRATGIP
                                                                                                EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                    Conservative
                                                                                                                                                                                                                             235 AA;
                                                                                                                                                                   98.8%;
97.2%;
                                                                                                                                                Score 554; DB 21;
Pred. No. 2.5e-34;
3; Mismatches 0
                                                                                                                                                                                   Length
                                                                                                                                                  Indels
                                                                                                                                                                                    235;
                                                                                                                                                0
                                                                                                                                            Gaps
                                                                         80
                                                                                                           60
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RESULT 3
ABB07233
ID ABB0
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THE SECTION OF THE SE
                                                                                                                                                                                                                                                                                                                                                                                                                     Human; antibody; interleukin; IL-4; antagonist; reantiarthritic; dermatological; antiulcer; antiinfantisickling; immunosuppressive; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anti-IL-4 and IL-13 receptors MAb 27A1 light chain variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABB07233;
                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                     IL-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABB07233
                                                                                                                                                                                                                                                                                                                                                                      antianemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; Protein; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     // interleukin/ IL-4; antagonist; receptor; IL-4 receptor; dermatological; antiulcer; antiinflammatory; cytostatic;
                                                       Location/Qualifiers
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26-MAY-2000; 2000US-0579808 19-SEP-2000; 2000US-0665343 15-FEB-2001; 2001US-0785934 01-MAY-2001; 2001US-0847816

25-MAY-2001; 2001WO-US17094

WPI; 2002-114332/15. N-PSDB; ABA94333.

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WO200192340-A2

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RESULT 4
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Best Local
                        Region
                                                                                                                                                                                                Monoclonal antibody; MAb; envelope; glycoprotein; gp120; HIV; AIDS; CD4; receptor; hybridoma; polymerase chain reaction; PCR; heavy; light; chain; epitope; immune deficiency.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     which IL-4 plays a role (e.g. IL-4-induced inflammation of part of the gastrointestinal tract), conditions in which IL-4-induced barrier disruption plays a role (e.g. conditions characterized by decreased. epithelial barrier function in the lung or gastrointestinal tract), scleroderma, hypertrophic scarring, Whipple's disease, benign prostate hyperplassia, IL-4-induced pulmonary conditions, allergic reactions to medication, Kawasaki disease, sickle cell disease or crisis, Churg-Strauss syndrome, Grave's disease, pre-eclampsia, Sjogren's syndrome,
                                                                   Protein
                                                                                                    Peptide
                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                   vk325-Jk2
                                                                                                                                                                                                                                                                                                                        01-NOV-1993
                                                                                                                                                                                                                                                                                                                                                               AAR38672;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diseases), and myasthenia gravis (an autoimmune muscular disease). IL-4 antagonists also find use as adjuvants to allergy immunotherapy and as vaccine adjuvants, especially when directing the immune response toward a THI response would be beneficial in treating or preventing the disease. The present sequence represents an anti-IL-4 receptor and anti-IL-13 receptor monoclonal antibody (MAb) 27A1 light chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                    AAR38672 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a human antibody (an interleukin (IL)-4 antagonist) (I) that binds human IL-4 receptor (IL-4R), and is cap inhibiting an IL-4-induced biological activity. (I) is also useful inhibiting both IL-4-induced biological activity and IL-13-induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Barrett's esophagus, autoimmune uveitis, tuberculosis, nephrosis, pemphigus vulgaris or bullous pemphigoid (autoimmune blistering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 3; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    scleroderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novol human antibody which binds human interleukin is capable of inhibiting IL-4 induced biological ac IL-4 antagonist and is useful for treating septic a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     autoimmune lymphoproliferative syndrome, autoimmune haemolytic anemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 urticaria (especially chronic idiopathic urticaria), ulcers, gastric
inflammation, mucosal inflammation, ulcerative colitis, Crohn's disc
inflammatory bowel disease, other disorders of the digestive system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                conditions such as septic/reactive arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ological activity in vivo in a human, and for treating septic arthritis a human afflicted with septic arthritis. (I) is also used for treating nditions such as septic/reactive arthritis, dermatitis herpetiformis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSS-PWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQXPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPPWTFGQGTKVEIK 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                        (first
                                                                 /label=
21..129
                                                                                                                        Location/Qualifiers
        /label= vk325
                                            /label=
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                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97.6%;
98.2%;
                                        mat_protein
                                                                               sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                    129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 547.5; DB 23;
Pred. No. 3.8e-34;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       colitis, Crohn's disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (IL)-4 receptor and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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RESULT 5
AAB62770
ID AAB6
XX
AC AAB6
XX
AC AAB6
XX
DT 03-A
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DE Huma
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AAB62770; 03-APR-2001 Human HIV-1

monoclonal

antibody SEQ ID

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(first entry

AAB62770 standard;

Protein;

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                                                                                                                                  Query Match
Best Local Simi
Matches 105;
                                                                                                                                                     The nucleotide sequence of F105 Vk (AAQ42707 - sequence differs other F105 Vk sequences given elsewhere in the specification) we compared with germline gene Humvk325 (AAQ42706), showing 97.7% similarity. By nucleotide sequence analysis, F105 appears to be derived from a member of the Vk III subgroup gene family.
                                                                                                                                   Sequence
                                                                                                                                                                                                                                              DNA segments encoding monoclonal antibody - and neutralises HIV, for treating AIDS, and monitoring HIV infection
                                                                                                                                                                                                                       Disclosure; Page 74-75; 109pp; English.
                                                                                                                                                                                                                                                                                                                          Haseltine WA,
                                                                                                                                                                                                                                                                                                                                                                                 10-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                                                       10-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9312232-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
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                                                                                                                                                                                                                                                                                                                                               (DAND ) DANA FARBER CANCER INST INC. (NEWE-) NEW ENGLAND DEACONNESS HOSPITAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                          1993-214174/26.
DB; AAQ42706.
                       61
                                           21
  81
                                                       1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQXPGQAPRLLIYGASSRATGIP
                                                                                                   Similarity
                 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPYTFGQGTKLEIK
                                           EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                   129 AA;
                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                           Marasco
                                                                                                                                                                                                                                                                                                                                                                                 91US-0804652
                                                                                                                                                                                                                                                                                                                                                                                                       92WO-US10928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "Pro encoded by GTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note= "Gly encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'label= CDR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= CDR2
|10..117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note= "Met encoded by ATC (sic)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    label= CDR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          label= Jk2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note= "Pro
                                                                                               97.3%;
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                                                                                                                                                                                                                                                                                                                          WA,
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                                                                                     Score 546; DB Pred. No. 5.7e 3; Mismatches
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                                                                               DB 1.
5.7e-34;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (sic)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (sic)."
                                                                                                                                                                                                                                                       which binds to for diagnosing
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                                                                                                          Length 129;
                                                                                      Indels
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                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                               Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse; tomato; monkey; dog; sea urchin; expressed sequence tag; EST; diagnostics; forensic test; gene mapping; genetic disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences for the variable regions of human monoclonal antibodies which are immunoreactive with human immunodeficiency virus-1 (HIV-1) envelope glycoprotein gp120. These can be used in diagnosis and therapy of HIV-1 infection.
25-JAN-2000;
17-JUL-2000;
                                                                                                                                                                                                       Human EST encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human monoclonal antibody immunoreactive with human immunodeficiency virus-1 glycoprotein gpi20, useful for detecting HIV-1 in biological sample and providing passive immunotherapy to HIV-1 infected mammal
                                    25-JAN-2001; 2001WO-US02687.
                                                                                      WO200154477-A2
                                                                                                                Homo sapiens.
                                                                                                                                        biodiversity; gene therapy; nutrition.
                                                                                                                                                                                                                                  12-OCT-2001
                                                                                                                                                                                                                                                            AAM24101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus-1; HIV-1; human monoclonal antibody; envelope glycoprotein; gp120; diagnosis.
                                                               02-AUG-2001.
                                                                                                                                                                                                                                                                                  AAM24101 standard; Protein; 384 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 66; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-112438/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Watkins BA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (USSH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200100678-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                      104;
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                                                                                                                                                                                                                                                                                                                                                                                                ULTQSPGTLSUSPGERATLSCRASQSVSSIYLAWYQQXPGQAPRLLIYGASSRATGIPD
                                                                                                                                                                                                                                                                                                                                                                                                                  IVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIPD
                                                                                                                                                                                                                                                                                                                                                RESGSGSGTDETLTISRLEPEDEAVYYCOQYGSSPWTFGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                        RFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
2000US-0491404.
2000US-0617746.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reitz MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US17327
                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B.
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                                                                                                                                                                                                       protein SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97.1%;
97.2%;
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-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 545; DB 22;
Pred. No. 5.8e-34;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                       1626.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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RESULT 7
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Best Local S
Matches 106
                                                                                 11-OCT-1996;
10-APR-1998;
27-JUN-1997;
               WPI; 2001-388931/41.
N-PSDB; AAH68723.
                                                                                                                                                                                                   Human; anti-Rh(D)
red blood cell; Ri
                                                                                                                                            03-JUL-2001.
                                                                                                                                                               US6255455-B1
                                                                                                                                                                                                                               Human anti-Rh(D) antibody clone SH52 protein sequence
                                                                                                                                                                                                                                                                                          AAG93666 standard;
                                            Siegel
                                                                                                                        29-JAN-1999;
                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                   14-SEP-2001
                                                                                                                                                                                                                                                                       AAG93666;
                                                                                                                                                                                                                                                                                                                                                                                                           c Local b
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from the organism of interest. They can be forensice, gene mapping, identification of biodiversity and for nutritional purposes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention provides the protein and coding sequences of novel
                                                               (UYPE-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Isolated polypeptide for treatment of diseases, diagnostics, antibodies and research use -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-AUG-2000; 2000US-0631451.
15-SEP-2000; 2000US-0663870.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 20; Page 1102-1103; 1275pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-476164/51.
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                                            μ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and tomato.
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Drmanac RA,
                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HYSEQ INC
                                                                                                                                                                                                                                                                                                                                        DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPTTFGQGTKVEIK
                                                                                                                                                                                                                                                                                                                                                           DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                              EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                               EIVLTOSPGTLSLSPGERATLSCRASOSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hamster monkey, macaque, yeast, bacteria, fruit fly, d tomato. These were derived from expressed sequence trorganism of interest. They can be used in diagnostics, gene mapping, identification of months.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         384 AA
                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                  (first entry)
                                                               PENNSYLVANIA
                                                                                 96US-0028550.
98US-0081380.
97US-0884045.
                                                                                                                        99US-0240274
                                                                                                                                                                                                   Rh
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Zhang
                                                                                                                                                                                                  antibody; Rh(D) binding h phenotype; diagnosis; t
                                                                                                                                                                                                                                                                                          Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                             97.1%;
98.1%;
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J, W
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Pred. No. 1.
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nan T;
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L.8e-33;
                                                                                                                                                                                                   protein; in therapeutic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 384;
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                                                                                                                                                                                                             immunostimulant;
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                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                              226
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New isolated protein,

preferably a

human anti-Rh(D)

antibody for use

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Best Local
                                                                       26-MAY-2000; 2000US-0579808.
19-SEP-2000; 2000US-0665343.
15-FEB-2001; 2001US-0785934.
01-MAY-2001; 2001US-0847816.
                                                                                                                                                                                                                                                                                                                                       Human; antibody; interleukin; IL-4; antagonist; receptor; IL-4 rece
antiarthritic; dermatological; antiulcer; antiinflammatory; cytosta
antisickling; immunosuppressive; tuberculostatic; ophthalmological;
antianemic; antithyroid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunostimulant activity and can be used as an immune system stimulant.

(I) can be used in diagnostic and therapeutic medicine. The antibodies are used in diagnostics that require human antibodies instead of animal antibodies, such as determine the Rh phenotype of human red blood cells. AAH68615 to AAH68726 represent the nucleotide sequence which encode AAG93550 to AAG93670 to AAG93670 represent anti-Rh(D) heavy chain CDR3 amino acid sequences which are given in the exemplification
                                                                                                                                                                                     WO200192340-A2
                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The
WPI; 2002-114332/15
                                                                                                                                    25-MAY-2001; 2001WO-US17094.
                                                                                                                                                              06-DEC-2001.
                                                                                                                                                                                                                          Region
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                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                       Anti-IL-4
                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABB07231 standard; Protein; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  preterably a human antibody, (I) having an amino acid so of the sequences (S) given in AAG93558 to AAG93669.
                                                 ( VMMI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABB07231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diagnostics requiring a human instead of an animal antibody and in therapeutic medicine -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64
                                                 IMMUNEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIPDRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LTQSPGTLSLSPGERATLSCRASQSISSSYLAWYQQKPGQAPRLLIYGASSRATGIPDRF
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                                                 CORP
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                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    162pp;
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98.1%;
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                                                                                                                                                                                                                                    "complementarity
                                                                                                                                                                                                             "complementarity
                                                                                                                                                                                                                                                             "complementarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                   light chain variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 544; DB 22;
Pred. No. 6.9e-34;
2; Mismatches 0
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                                                                                                                                                                                                            determining
                                                                                                                                                                                                                                    determining
                                                                                                                                                                                                                                                            determining region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                receptor; IL-4 receptor;
nflammatory; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acid sequence com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 108;
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                                                                                                                                                                                                                                                              (CDR)
                                                                                                                                                                                                             (CDR)
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Sequence

109 AA,

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urticaria (especially chronic idiopathic urticaria), ulcers, gastric inflammation, mucosal inflammation, ulcerative colltis, Crohn's disease, inflammatory bowel disease, other disorders of the digestive system in which IL-4 plays a role (e.g. IL-4-induced inflammation of part of the gastrointestinal tract), conditions in which IL-4-induced barrier disruption plays a role (e.g. conditions in which IL-4-induced barrier disruption plays a role (e.g. conditions in which II-4-induced barrier the color in the lung or gastrointestinal tract), scleroderma, hypertrophic scarring, Whipple's disease, benign prostate hyperplasia, IL-4-induced pulmonary conditions, allergic reactions to medication, Kawasaki disease, sickle cell disease or crais, Churgstrauss syndrome, Grave's disease, pre-eclampsia, Sjogren's syndrome, autoimmune lymphoproliferative syndrome, autoimmune haemolytic anemia, nachronis
                                          diseases), and myasthenia gravis (an autoimmune muscular disease). IL-4 antagonists also find use as adjuvants to allergy immunotherapy and as vaccine adjuvants, especially when directing the immune response toward a THI response would be beneficial in treating or preventing the disease. The present sequence represents an anti-IL-4 receptor monoclonal antibody (MAb) 12B5 light chain variable region.
                                                                                                                                                                                                     Barrett's esophagus, autoimmune uveitis, tuberculosis, nephrosis, pemphigus vulgaris or bullous pemphigoid (autoimmune blistering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               biological activity in vivo in a human, and for treating septic arthritis in a human afflicted with septic arthritis. (I) is also used for treating conditions such as septic/reactive arthritis, dermatitis herpetiformis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antagonist) (I) that binds human IL-4 receptor (IL-4R), and is cap inhibiting an IL-4-induced biological activity. (I) is also useful inhibiting both IL-4-induced biological activity and IL-13-induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human antibody which binds human interleukin (IL)-4 receptor and is capable of inhibiting IL-4 induced biological activity, functions a IL-4 antagonist and is useful for treating septic arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
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I) that binds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antibody (an interleukin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         capable
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S
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                                          밁
                                                                                        Matches
                                                                                                  Query Match
Best Local
                                                                                        106;
5
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                                                                  ۳
                                                                                                  Similarity
            DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSS-PWTFGQGTKVEIK 108
                                                         EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                         EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIFGASSRATGIP
DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPPWTFGQGTKVEIK 109
                                                                                        Conservative
                                                                                                96.98;
                                                                                    Score
Pred.
2; Mis
                                                                                        Mismatches
                                                                                                No. 7.6
                                                                                                  .6e-34;
                                                                                                            DВ
                                                                                                           23;
                                                                                      <u>.</u>
                                                                                      Indels
                                                                                                           Length
                                                                                                            109;
                                                                                     1:
                                                                                     Gaps
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60 60

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RESULT 9
AAU14461
AAU14461
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standard; Protein; 384

B

24-OCT-2001 (first entry)

Human novel protein #332.

immunomodulatory; cytostatic; neuroprotective; vulnerary; nootropic; anticonvulsant; antiarthritic; cerebroprotective; antifungal; antiviral; antibacterial; antiallergic; dermatological; haemostatic; antiasthmatic; thrombolytic; immunogen; antibody; gene therapy; neurological Parkinson's disease; inflammatory disorder; cancer; asthma; os Human; novel protein; Antianaemic; osteopathic; antiinflammatory; regeneration;

Homo sapiens.

WO200155437-A2

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ARBSULT 10
ARU14462
ID AAU144
XX AAU
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  molecular weight markers, food supplements, and in antibody production.

Cf me polypeptides are used to identify compounds which bind to the polypeptides. Polynucleotides of the invention are used as probes and primers, for sequencing, for chromosome or gene mapping, in the production of recombinant proteins, and in generating anti-sense DNA or production of recombinant proteins, and in generating anti-sense DNA or RNA and in gene therapy. Polypeptides of the invention can be used to target drugs to a tumour, in assays to determine biological activity, to craise antibodies/elicit an immune response, to determine quantitative protein levels, as tissue markers, and to isolate receptors or ligands. Polypeptides of the invention may also be useful in treating platelet CC Polypeptides of the invention may also be useful in treating platelet CC ligament and/or nerve tissue, wound healing, treating burns, promoting the proliferation, differentiation and survival of stem cells, as a contraceptive, treating osteoporosis and osteoarthritis, anaemia, and allender's, parkinson's and funtington's diseases, amylotrophic lateral and contraceptive tracks immune deficiencies resulting barety and catteral and contraceptive tracks immune deficiencies resulting to be accepted to the province tracks and funtington's diseases, amylotrophic lateral and contraceptive tracks immune deficiencies resulting to the province tracks immune tracks immune tracks immune tracks and the province tracks immune tracks immune tracks and the province tracks immune tracks and the province 
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Human; novel protein; Antianaemic; osteopathic; antiinflammatory; immunomodulatory; cytostatic; neuroprotective; vulnerary; nootropic; anticonvalsant; antiarthritic; cerebroprotective; antifungal; antiviral;
                                                                                                                                                                                                                                    24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fungal infection or from autoimmunity, cancer, allergy, ast graft-versus-host disease, eczema, haemophilia, thrombosis, anti-inflammatory diseases, nervous system disorders, and i
                                                                                                                                                                                                                                                                                                             AAU14462;
                                                                                                                                                                                                                                                                                                                                                                                  AAU14462 standard; Protein; 384 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             treatment of a mammal and prevention of disorders caused by the aberrant protein expression or activity. The polypeptides can be used as molecular weight markers, food sumplements
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tang YT,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-451939/48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
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                                                                                                                                                                    novel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DRFSGSGSGTDFTLTISKLEPEDFAVYYCQQYGSSPTTFGQGTKVDIK 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           stroke, immune deficiencies resulting from bacterial,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    384
                                                                                                                                                            protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                #333.
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97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         represents a protein of the invention.
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Pred. No. 3e-33;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22;
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Example 4; Page 825-826; 894pp; English.
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                                                                                                                                                                                                                             Isolated polypeptides useful for treating anti-inflammatory diseases, nervous system disorders, and for regenerating bone and cartilage
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                                                                                                                                                                                                                                                                                            (HYSE-) HYSEQ
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                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                              Parkinson's disease;
                                                                                                                                                                                                                                                                                                                                                                                                             antibacterial; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                       tissue regeneration;
                                                                                                                                                                                                                                                                                                                                                                                                       thrombolytic;
                                                                                                                                                                                                                                                                             Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                     immunogen;
                                                                                                                                                                                                                                                                             Drmanac
                                                                                                                                                                                                                                                                                                                                                                                       immune disorder.
                                                                                                                                                                                                                                                                                                                                                                                            lergic; dermatological; haemostatic; gen; antibody; gene therapy; neurologi inflammatory disorder; cancer; asthma
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                                                                                                                                                                                                                                                                                                                                                                                            asthma; osteoporosis;
                                                                                                                                                                                                                                                                                                                                                                                                     antiasthmatic;
ical disorder;
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The invention relates to polynucleotides encoding novel human CC proteins or their active domains. The polypeptides, polynucleotides and CC antibodies raised against the polypeptides are used in a method of CC treatment of a mammal and prevention of disorders caused by the aberrant protein expression or activity. The polypeptides can be used as CC molecular weight markers, food supplements, and in antibody production. CC The polypeptides are used to identify compounds which bind to the CC production of recombinant proteins, and in generating anti-sense DNA or CC production of recombinant proteins, and in generating anti-sense DNA or CC RNA and in gene therapy. Polypeptides of the invention can be used to craige antibodies/elicit an immune response, to determine quantitative CC protein levels, as tissue markers, and to isolate receptors or ligands. CC polypeptides of the invention may also be useful in treating platelet CC disorders, stem cell disorders, regenerating bone, cartilage, tendon, CC ligament and/or nerve tissue, wound healing, treating burns, promoting the proliferation, differentiation and survival of stem cells, as a contraceptive, treating one portation and survival of stem cells, as a contraceptive, treating one portation and survival of stem cells, as a contraceptive, treating one portation and survival of stem cells, as a contraceptive, treating and barrant and osteoarthritis, anaemia. Matches 105; Query Match Best Local Similarity fungal infection or from autoimmunity, cancer, allergy, asthma, graft-versus-host disease, eczema, haemophilia, thrombosis, anti-inflammatory diseases, nervous system disorders, and infect the present sequence represents a protein of the invention. Sequence Alzheimer's, Parkinson's and Huntington's diseases, amylotrophic lateral sclerosis, stroke, immune deficiencies resulting from bacterial, viral o 170 230 61 ш DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108 ETVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPTT 384 Conservative \$ 96.6%; 97.2%; Score 542; DB 2 Pred. No. 3e-33; Mismatches 22; ۲. Length 384; Indels 277 infection. 0 Gaps 229 60 ö 0

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RESULT 11
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AC AAU14 AAU14463 standard; Protein; 384 ₹

AAU14463

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230 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPTTFGQGTKVDIK 277

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DRESGSGGTDETLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK
                                                      EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQXPGQAPRLLIYGASSRATGIP
                                       BIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                            Conservative
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Pred. No. 3e-33;
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Query Match Best Local Similarity

96.6%;

Score Pred.

542; DB 22; No. 3e-33;

Length 384;

Sequence

384

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represents a protein

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Query Match

Local

Similarity

96.6%;

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Length 384;

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molecular weight markers, food supplements, and in antibody production. The polypeptides are used to identify compounds which bind to the polypeptides. Polynucleotides of the invention are used as probes and primers, for sequencing, for chromosome or gene mapping, in the production of recombinant proteins, and in generating anti-sense DNA or RNA and in gene therapy. Polypeptides of the invention can be used to target drugs to a tumour, in assays to determine biological activity, to protein levels, as tissue markers, and to isolate receptors or ligands. Polypeptides of the invention may also be useful in treating platelet disorders, stem cell disorders, regenerating bone, cartilage, tendon, ligament and/or nerve tissue, wound healing, treating burns, promoting the moral of the protein and different and disparent the markers.
sclerosis, stroke, immune deficiencies resulting from bacterial, viral or fungal infection or from autoimmunity, cancer, allergy, asthma, graft-versus-host disease, eczema, haemophilia, thrombosis, anti-inflammatory diseases, nervous system disorders, and infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to polynucleotides encoding novel human proteins or their active domains. The polypeptides, polynucleotides and antibodies raised against the polypeptides are used in a method of treatment of a mammal and prevention of disorders caused by the aberrant protein expression or activity. The polypeptides can be used as
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antibacterial; antiallergic; dermatological; haemostatic; antiasthmatic;
thrombolytic; immunogen; antibody; gene therapy; neurological disorder;
                                                                                                                                                                     the proliferation, differentiation and survival of stem cells, as a contraceptive, treating osteoporosis and osteoarthritis, anaemia, Alzheimer's, Parkinson's and Huntington's diseases, amylotrophic lateral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Isolated polypeptides useful for treating anti-inflammatory diseases, nervous system disorders, and for regenerating bone and cartilage -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 826-827; 894pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein;
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isease; inflammatory disorder; cancer; asthma; osteoporosi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vulnerary; nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antiinflammatory,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 asthma; osteoporosis
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RESULT 12
AAU14464
                                                   CC molecular weight markers, food supplements, and in antibody production.

CC The polypeptides are used to identify compounds which bind to the polypeptides. Polynucleotides of the invention are used as probes and CC primers, for sequencing, for chromosome or gene mapping, in the production of recombinant proteins, and in generating anti-sense DNA or CR NA and in gene therapy. Polypeptides of the invention can be used to carget drugs to a tumour, in assays to determine biological activity, to CC raise antibodies/elicit an immune response, to determine quantitative protein levels, as tissue markers, and to isolate receptors or ligands. CC polypeptides of the invention may also be useful in treating platelet CC disorders, stem cell disorders, regenerating bone, cartilage, tendon, CC ligament and/or nerve tissue, wound healing, treating burns, promoting the proliferation, differentiation and survival of stem cells, as a contraceptive, treating osteoporosis and osteoarthritis, anaemia, and contraceptive, treating osteoporosis and osteoarthritis, anaemia, CC alzheimer's, Parkinson's and Huntington's diseases, amylotrophic lateral CC scartilammatory diseases, nervous system diseases, and infection.

The processor and infection or from autorimmunity, cancer, allergy, asthma, and infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to polynucleotides encoding novel human proteins or their active domains. The polypeptides, polynucleotides and antibodies raised against the polypeptides are used in a method of treatment of a mammal and prevention of disorders caused by the aberran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       treatment of a mammal and prevention of disorders caused by the aberrant protein expression or activity. The polypeptides can be used as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-451939/48.
N-PSDB; AAS22769.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tang YT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunomodulatory; cytostatic; neuroprotective; vulnerary; nootropic; anticonvulsant; antiarthritic; cerebroprotective; antifungal; antiviral; antibacterial; antiallergic; dermatological; haemostatic; antiasthmatic; thrombolytic; immunogen; antibody; gene therapy; neurological disorder; Parkinson's disease; inflammatory disorder; cancer; asthma; osteoporosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 4; Page 827; 894pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU14464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU14464 standard; Protein; 384 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Isolated polypeptides useful for treating anti-inflammatory diseases, nervous system disorders, and for regenerating bone and cartilage -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JAN-2000; 2000US-0491404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JAN-2001; 2001WO-US02623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-AUG-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                regeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            novel protein; Antianaemic; osteopathic; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein #335.
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RESULT 14
AAB99374
ID AAB99
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AC AAB99
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AAB62773
ID AAB62
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                                                                                                                                                                                Query Match
Best Local
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 AAB99374,
                                                                                                                                                                                                                                 The present invention provides the protein and coding sequences for the variable regions of human monoclonal antibodies which are immunoreactive with human immunodeficiency virus-1 (HIV-1) envelope glycoprotein gp120. These can be used in diagnosis and therapy of HIV-1 infection.
                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                      Novel human monoclonal antibody immunoreactive with human immunodeficiency virus-1 glycoprotein gp120, useful for detecting HIV-1 in biological sample and providing passive immunotherapy to HIV-1 infected mammal
                    AAB99374 standard; Protein; 226
                                                                                                                                                                                                                                                                                                                                                                                                                Watkins BA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus-1; HIV-1; human monoclonal antibody;
                                                                                                                                                                                                                                                                                                 Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JUN-2000; 2000WO-US17327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200100678-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           envelope glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human HIV-1 monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB62773 standard; Protein; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                     (USSH ) US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                          2001-112438/12.
                                                                                                                                                                      103;
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                                                                                                                                           1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKDGQAPRLLIYGASSRATGIP
                                                                                                                                                                      Similarity 95.4
03; Conservative
                                                                                                                                                                                                                                                                                                                                                                                AAF29074.
                                                                        DRFSGSGGTDFTLTISRLEPEDFAVYYCQQSGSSPWTFGQGTKVEIK 108
                                                                                               DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                     DLVLTQSPGTLSLSPGERATLSCRASQSVSSIYLAWYQQKPGQAPRLLIYGASSRATGIP
                                                                                                                                                                                                                                                                                              Page 67-68; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DRFSGSGSGTDFTLTISKLEPEDFAVYYCQQYGSSPTTFGQGTKVDIK 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                Reitz MS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0141701.
                                                                                                                                                                               95.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gp120; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibody
                                                                                                                                                                   Score 538; DB 2
Pred. No. 2e-33;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                          22;
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                                                                                                                                                                    <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                        Length 109;
                                                                                                                                                                    Indels
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                                                                                                                                                                                                                                                                  Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                Human antibody; detection; Fab; immunoglobulin; heterophilic antibody; human anti-mouse antibody; HAMA antibody; interleukin 8; IL-8; Herpes; harget antigen; bacterial; fungal; viral; pathogen; human disease; hepatitis A; hepatitis B; hepatitis C; influenza; Giardia; Malaria;
WPI; 2001-374798/39.
                                  Buechler J,
                                                                                                                          06-DEC-1999;
                                                                                                                                                           06-DEC-2000; 2000WO-US33042
                                                                                                                                                                                              07-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                        Human interleukin 8 antibody protein sequence M1
                                                                                                                                                                                                                                 WO200140306-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-AUG-2001 (first entry)
                                                                     (GENP-) GENPHARM INT.
                                                                                      (BIOS-) BIOSITE DIAGNOSTICS INC.
                                                                                                                                                                                                                                                                                                                    Leishmania; Staphylococcus aureus; Pseudomonas aeruginosa; diagnosis
                                 Valkirs G,
                                                                                                                         9908-0456090
                               Gray J,
                               Lonberg
                                                                                                                                                                                                                                                                                                                                                                                                                        _23L
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Detecting analyte in human sample containing human antibodies to nonhuman-antibodies, involves contacting sample with human which binds to antibodies from nonhuman species and detecting binding antibody binding

Example 22; Page 94; 135pp; English.

CC detecting an analyte in a human sample containing human anti-mouse antibody (HAMA) (preferably human anti-mouse idiotype antibodies and/or CC heterophilic antibodies). The method can also be used for detecting any CC type of target antigen including bacterial, fungal and viral pathogens CC diardia, Malaria, Leiahmania, Staphylococcus aureus, Pseudomonas CC deruginosa. Human antibodies can be used as detection reagents for CC performing clinical diagnostic tests and for performing other in viro CC detection assays, including for research purposes. (I) can be used in CC qualitative assays designed to indicate the presence of one or more CC target antigens above minimally detectable amounts of antigen in the CC assays for each target antigen in a sample that usually correspond to the sensitivity limitations of the CC assays for each target antigen in a sample tantigens in a sample can also be carried out using (I). AAH41612 to AAH41686, and AAB99361 to AAB99399, represent sequences used in the exemplification of the present antibodies from a nonhuman species. The method involves contacting the sample with a human antibody (I) which specifically binds to antibodies from a nonhuman species and detecting the binding between (I) and the analyte to indicate presence of the analyte. The method is used for The present invention describes a method for detecting an analyte human sample containing human antibodies that specifically bind to Invention ő in a

Sequence 226 A,

Matches Query Match Best Local :

105;

Conservative

ω --

Local

Similarity

95.5%; 96.3%;

DB 22;

Length

226;

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                     5
DRFSGSGSGTDETLTISRLEPEDPAVYYCQQYGSS-PWTFGQGTKVEIK 108
                                                               EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP
                                              EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQXPGQAPRLLIYGASSRATGIP
                                                                                                        Score 535.5; DB 22
Pred. No. 5.8e-33;
3; Mismatches 0;
                                                                                                          1;
                                                                                                        Gaps
                                                60
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S

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RESULT 15
AAB99397
ID AAB99
XX
AC AAB99
XX
AC AAB99
XX
AC AAB99
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                          human anti-mouse antibody, HAMA antibod
target antigen; bacterial; fungal; virz
hepatitis A; hepatitis B; hepatitis C;
Leishmania; Staphylococcus aureus; Pseu
Synthetic.
                                                                                                                                                                                            Human interleukin 8 antibody protein sequence M2_33L.
                                                                                                                                                                                                                                                                                                                                  AAB99397 standard; Protein; 226 AA
                  Homo sapiens.
                                                                                                                                                      Human antibody; detection;
                                                                                                                                                                                                                                               28-AUG-2001
                                                                                                                                                                                                                                                                                           AAB99397;
                                                                                                                                                                                                                                                                                                                                                                                                                                             61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCOOYGSSPPYTFGQGTKLEIK 109
                                                                                                                                                                                                                                          (first entry)
                                                            HAMA antibody; incurrent disease; fungal; viral; pathogen; human disease; henatitis C; influenza; Giardia; Malaria
                                                                                                                        immunoglobulin; heterophilic antibody; antibody; interleukin 8; IL-8; Herpes;
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07-JUN-2001. 06-DEC-1999; 06-DEC-2000; 2000WO-US33042. WO200140306-A1 9905-0456090

WPI; 2001-374798/39. Buechler J, Valkirs G, Gray J, Lomberg N;

(BIOS-) BIOSITE DIAGNOSTICS INC. (GENP-) GENPHARM INT.

Detecting analyte in human sample containing human antibodies binding to nonhuman-antibodies, involves contacting sample with human antibody which binds to antibodies from nonhuman species and detecting binding

Example 22; Page 96; 135pp; English

C from a nonhuman species and detecting the mathyte reversity analyte to indicate presence of the analyte. The method is used for C detecting an analyte in a human sample containing human anti-mouse (antibody (HAMA) (preferably human anti-mouse idiotype antibodies and/or C heterophilic antibodies). The method can also be used for detecting any C type of target antigen including bacterial, fungal and viral pathogens of that cause human disease e.g., hepatitis (A, B and C), influenza, Herpes, C Glardia, Malaria, Leishmania, Staphylococcus aureus, Pseudomonas C aeruginosa. Human antibodies can be used as detection reagents for C performing clinical diagnostic tests and for performing other in vitro detection assays, including for research purposes. (I) can be used in C qualitative assays designed to indicate the presence of one or more c target antigens above minimally detectable amounts of antigen in the sample that usually correspond to the sensitivity limitations of the sense. Quantification of one or more target antigens that assays for each target antigen in a sample in a semi-quantitative or relative sense. Quantification of one or more target antigens in a sample can also be carried out using (I). AAH41612 to AAH41686, and AAB9361 to AAB99399, represent sequences used in the exemplification of the present The present invention describes a method for detecting an analyte in a human sample containing human antibodies that specifically bind to antibodies from a nonhuman species. The method involves contacting the sample with a human antibody (I) which specifically binds to antibodies from a nonhuman species and detecting the binding between (I) and the

Sequence 226 8

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Query Match Best Local Similarity 95.5**%**; 96.3**%**; Score 535.5; DB 22; Length 226; Pred. No. 5.8e-33;

> 밁 S 몽 ঠ Matches 61 105; Conservative 61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSS-PWTFGQGTKVEIK 108 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60 DRESGSGSGTDETLITISRLEPEDEAVYYCQQYGSSPPYTEGQGTKLEIK EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP 60 Mismatches <u>.</u> Indels 109 ۲, Gaps ۳.

Search completed: June 3, Job time: 49.6553 secs 2003, 08:14:43

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               seq length: 0
seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    June 3, 2003, 08:21:07; Search time 25.6177 Seconds (without alignments) 426.742 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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561
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   995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Published_Applications_AA:*
:: /cgn2_6/ptodata/1/pubpaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EIVLTQSPGTLSLSPGERAT......CQQYGSSPWTFGQGTKVEIK 108
US-10-153-382-7

US-09-848-798-178

US-10-073-644C-8

US-09-453-234-86

US-09-453-234-86

US-09-453-234-82

US-09-453-234-72

US-09-453-234-72

US-09-453-234-72

US-09-453-234-72

US-09-453-234-72

US-09-453-234-72

US-09-453-234-72

US-09-880-748-1264

US-09-880-748-1499

US-09-880-748-1499

US-09-782-397-17

US-09-782-397-17

US-09-782-397-17

US-09-782-397-17

US-09-782-397-17

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US-09-782-397-17
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/1/pubpaa/US09 NEW PUB.pep:*
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                                                                                                                                                                                                 Sequence 7, Appli
Sequence 178, App
Sequence 8, Appli
Sequence 86, Appli
Sequence 86, Appl
Sequence 23, Appl
Sequence 23, Appl
                                                                                                                                                                                                                                                                                                                                             Description
                                              Sequence 5, A
Sequence 17,
                                                                                 Sequence
                                                                                                                                    sequence
                              38, Appl
1264, Ap
8, Appli
1499, Ap
5, Appli
17, Appli
14, Appl
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45	44	43	42	41	40	9	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
487	487.5	488	489	491	491	491.5	497.5	499	499	499.5		506	506.5	9	507.5	507.5	507.5	508.5	509	509	509	510.5	511	512.5	513
86.8	86.9	7	7.	7	7	87.6		88.9	8	9.			90.3							?		1.		91.4	91.4
214	254	107	141	. 96	96	106	146	109	109	252	224	249	212	236	234	224	224	236	110	107	105	224	233	251	105
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ALIGNMENTS

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Best Local Similarity
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SEQ ID NO 7
LENGTH: 235
TYPE: PRT
ORGANISM: Homo sapiens
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Publication No. US20030086930A1
GENERAL INFORMATION:
APPLICANT: PFIZER PRODUCTS INC.
TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
                                                                              Sequence 178, A
Publication No.
                                          APPLICANT: Siegel,
                                                                                                                                                                                                                                                                                                                                                                         Matches 105;
APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39
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CURRENT FILING DATE: 2002-05-22
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                                                                                  Application US/09848798
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97.2%;
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Pred. No. 3.2e-32;
3; Mismatches 0;
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Best Local Sim:
Matches 103;
Sequence 50, Application US/09453234
Publication No. US20030091995A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/338,956
PRIOR TILING DATE: 2001-11-05
PRIOR APPLICATION NUMBER: US 60/268,075
PRIOR FILING DATE: 2001-02-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/073,644C CURRENT FILING DATE: 2002-02-11
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SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: anti-Rh(D) antibody clone SH52 09-848-798-178
                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
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PRIOR FILING DATE: EARLIER FILING DATE: 1999-01-29
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/028,550
PRIOR FILING DATE: EARLIER FILING DATE: 1996-10-11
NUMBER OF SEQ ID NOS: 224
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES ITLE OF INVENTION: RECEPTOR (CD89)
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                                                                                                                                                                                                                                                                                                           105;
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                                                                                                                                                                                                                     ETVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIP 60
                                                                                                                                         DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPPYTFGQGTKLBIK 109
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van Dijk, Marc
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Pred. No. 3.3e-31;
3; Mismatches 0
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Pred. No. 8.3e-32;
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; OTHER INFORMATION: M2-33L
US-09-453-234-86
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; OTHER INFORMATION: M1-23L
US-09-453-234-50
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LENGTH: 226
                                                                                                                                                         Matches
                                                                                                                                                                         Query Match
Best Local Similarity
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SEQ ID NO 50
LENGTH: 226
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Publication No. US20030091995A1
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Best Local Similarity 96.3%;
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PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
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PRIOR FILING DATE: 1999-10-02
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APPLICANT: Valkirs, Gunars
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CURRENT FILING DATE: 1999-12-01
                                                                                                                                                                                                                                                                                              TYPE: PRT
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                                                                                                                                                       105;
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                    61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSS-PWTFGQGTKVEIK 108
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                                                                        1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQXPGQAPRLLIYGASSRATGIP
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DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPPYTFGQGTKLEIK 109
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Biosite Diagnostics,
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Biosite Diagnostics,
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96.3%;
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Pred. No. 6.1e-31;
3; Mismatches 0
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Pred. No. 6.1e-31;
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RESULT 6

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RESULT 8
US-09-453-234-42
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US-10-153-382-23
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                                                                                                                                                                                                                                             Matches
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Best Local Similarity 94.5%;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/157,415
PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
SOFTWARE: Patentin Ver. 2.1
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APPLICANT: Valkirs, Gunars
APPLICANT: Gray, Jeff
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OTHER INFORMATION: M2-20L
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                                                                                                                   61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSP-WTFGQGTKVEIK 108
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Biosite Diagnostics, Inc.
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97.1%;
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                                                                                                                                                                                                                                                        Score 528.5; DB 9
Pred. No. 1.9e-30;
                                                                                                                                                                                                                                                                               DB 9;
                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                             Length 226;
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; ORGANISM: Homo sapiens
; OTHER INFORMATION: M1-5L
US-09-453-234-42
                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 60/157,415
PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 74
LENGTH 72.6
                                                                                                                                                Query Match
Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 42, Application US/09453234
Publication No. US20030091995A1
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PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
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CURRENT FILING DATE: 1999-12-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/453,234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 020015-000110U
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                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
OTHER INFORMATION: M2-12L
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                                                                                                                                                                                                                                                                                                   LENGTH: 226
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PPLICANT: Blosite Diagnostics, Inc.
PPLICANT: GenPharm International
ITLE OF INVENTION: Human Antibodies
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PELICANT: Biosite Dispostics, Inc.
PELICANT: GenPharm International
TLE OF INVENTION: Human Antibodies
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Local Similarity 94.5%;
nes 103; Conservative 4
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61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSS-PWTFGQGTKVEIK 108
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                                                                                  1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
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                                                                                                                                                Similarity
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                                                                                                                               Conservative
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93.6%; Pred. No. 4.3e-30;
                                                                                                                            4; Mismatches
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Pred. No. 2.6e-30;
4; Mismatches 1
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                                                                        Query Match
                                       Matches 102;
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Best Local Similarity
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SEQ ID NO 72
                                                                                                             ORGANISM: Homo sapiens
OTHER INFORMATION: M1-3L
-09-453-234-38
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PRIOR FILING DATE: 1999-10-02
UMBER OF SEC. T. ...
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APPLICANT: Valkirs, Gunars
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NUMBER OF SEQ ID NOS: 112
                                                                                                                                                                 TYPE: PRT
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TYPB: PRT
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PPLICANT: Valkirs, Gunars
                                                                                                                                                                                                                                                                                                                    ITLE OF INVENTION: Human Antibodies
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OTHER INFORMATION: M2-11L
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URRENT FILING DATE: 1999-12-01
                                                           Local Similarity
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                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/453,234 FILING DATE: 1999-12-01
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1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
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Biosite Diagnostics, Inc.
GenPharm International
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10. US20030091995A1
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Biosite Diagnostics,
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                                         Conservative
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                                                      92.8%;
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93.6%;
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                                                    Score 520.5; DB 9; Pred. No. 6.9e-30;
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                                       Mismatches
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                                    Indels
                                                                     Length 226;
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                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                        Sequence 8, Application US Patent No. US20020016445A1 GENERAL INFORMATION:
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CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-06-15
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                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: ROBINS & ASSOCIATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRICANT: Ruben et al. The Control of Invention: Antibodies that Immunospecifically Bind BLyS
                                                                                                                                                                                                                                                                                               UPPLICANT: PERSSON, MATS AXEL

LEPLICANT: ALLANDER, TOBIAS ERIK

LITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES SPECIFIC FOR

LITLE OF INVENTION: HEPATITIS C VIRUS (HCV) E2 ANTIGEN
                                                                                                                                                                                                                                                                                       TUMBER OF SEQUENCES:
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                  SOFTWARE: PatentIn Release #1.0, Version #1.30 RRENT APPLICATION DATA:
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      APPLICATION NUMBER:
                                                                                                                                                                                                     CITY: MENLO PARK
                                                                                                                                                               COUNTRY:
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                                                                                                                                                                                                                          90 MIDDLEFIELD ROAD,
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US/08/844,215
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Pred. No. 7.4e-30;
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FILING DATE: 19-APR-1996 ATTORNEY/AGENT INFORMATION:

CLASSIFICATION: 435

17-APR-1997

APPLICATION NUMBER:

US 08/635,109

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JS-09-880-748-1499
                                                                                                                                                            Matches
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Best Local Similarity
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Best Local s
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (650) 325-7823 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 3239
                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPLICANT: Ruben et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                              TWARE: PatentIn Ver. 2.0
ID NO 1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS LE REFERENCE: PF523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 38,548 REFERENCE/DOCKET NUMBER: 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/276,248 FILING DATE: 2001-03-16 APPLICATION NUMBER: 60/277,379 FILING DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/293,499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/240,816 FILING DATE: 2000-10-17
                                                                                                                                                          101;
                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PILING DATE: 2001-06-15
PLICATION NUMBER: 60/212,210
LING DATE: 2000-06-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/880,748
                                                                                                   1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 LTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIPDRF 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h 92.7%;
Similarity 94.3%;
99; Conservative
                                    DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVBIK 108
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                                                                             ETTLTQSPGTLSLSPGERATLSCRASQSVRNSYLAWYQQKPGQAPRLLIYGASSRATGIP
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DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPVTFGGGTKVEIK 252
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                                                                                                                                                                        Score 520; DB 9;
Pred. No. 8.3e-30;
                                                                                                                                                        Mismatches
                                                                                                                                                                                           Length 253;
                                                                                                                                                      Indels
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Search completed: June 3, Job time: 26.6177 secs
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US-09-782-397-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 706141
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/862,124
FILING DATE: 1997-05-22
ATTORNEY/AGENT INFORMATION:
NAME: Lehnhardt, Susan K.
REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 31608-20001.20
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster LLP
STREET: 755 Page Mill Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: ANTIGEN BINDING FRAGMENTS H11, SPECIFICALLY DETECT CANCER CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Dan, Michael D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                  85 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPQTPQITFGGGTKVEIK 136
                                                                                                                          61 DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPW----TFGQGTKVEIK 108
                                                                                                                                                                     25 DIVLTQSPGTLSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASTRATGMP
                                                                                                                                                                                                               1 EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino
                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/782,397 FILING DATE: 13-Feb-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (650) 494-0792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 94304-1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 150 amino acids
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                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                              92.2%;
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                    2003, 08:52:51
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Pred. No. 8.6e-30;
4; Mismatches 2
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Maximum Match 100%
Listing first 45 s
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88
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seq length: 2000000000
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561
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/cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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(gn2_6/ptodata/1/iaa/5B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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                                                                                       US-08-232-081B-42
US-08-488-113B-150
US-08-477-484B-150
US-08-647-785-150
US-08-616-360-150
US-08-610-839-765-150
US-09-610-839-150
US-09-610-838-150
US-08-477-728-86
US-08-484-537-86
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US-08-484-537-86
US-08-899-575-86
US-08-899-575-86
US-08-899-575-86
US-08-899-575-86
US-08-862-124-5
US-08-862-124-5
US-08-862-124-17
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193.728 Million cell updates/sec
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Sequence
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   16, Appl
178, App
110, App
150, App
150, App
150, App
150, App
150, App
150, App
160, App
160
Query Match
Best Local Similarity
Matches 105; Conserv
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44 55	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
493	493	493	493	493	495.5	495.5	495.5	495.5	497	497	499	499	505.5	507	508	808	508
87.9	87.9	87.9	87.9	87.9	88.3	88.3	88.3	88.3	88.6	88.6	88.9	88.9	90.1	90.4	90.6	90.6	90.6
107	104	104	104	104	109	109	109	109	109	109	110	110	134	129	108	108	108
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US-08-276-852-90	PCT-US95-08743-100	US-08-899-575-100	US-08-899-575-100	US-08-276-852-100	PCT-US95-08743-147	US-08-899-575-147	US-08-899-575-147	US-08-276-852-147	PCT-US93-08786-23	US-08-162-102C-23	US-09-025-769B-47	US-09-025-769B-30	US-08-405-034-4	US-08-480-774A-4	PCT-US95-08743-99	US-08-899-575-99	US-08-899-575-99
90, 1		100,	100,	100	147	147	147	Sequence 147, App	23,	23,			Sequence 4, Appli	4	99,	Sequence 99, Appl	-

ALIGNMENTS

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; TOPOLOGY: 1:
; MOLECULE TYPE:
US-09-025-769B-16
                                                                                                                                                   TELEFAX: (212)596-9090
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 109 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/025,769B FILING DATE: 18-FEB-1998 PRIOR APPLICATION DATA: APPLICATION UNMBER: EP 95 11 3021.0 FILING DATE: 18-AUG-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: MC
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Ge, Liming
APPLICANT: Moroney, Simon
APPLICANT: Plueckthun, Andreas
TITLE OF INVENTION: Protein/(Poly)peptide libraries
NUMBER OF SEQUENCES: 373
CORRESPONDENCE ADDRESS:
                                                                                                              TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                     NAME: James F. Haley, REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                           TELEPHONE:
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T: 1251 Avenue of the Americas
New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New York
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                                                                                                                                                     109 amino acids
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Pack, Peter
Ilag, Vic
                                                                                                                                                                                                         (212) 596-9090
                                                                                                linear
                                                                                                                                                                                                                               (212)596-9000
                                                                           protein
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97.3%; Score 546; DB 4; Length 109; 97.2%; Pred. No. 8.9e-42;
                                                                                                                                                                                                                                                                                                                                                           EP 95 11 3021.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Release #1.0, Version
                                                                                                                                                                                                                                                        27,794
PER: MORPHO/5
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SEQ ID NO 178
LENGTH: 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: anti-Rh(D) antibody clone SH52-09-240-274-178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  atent No. 6255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
CRAFLER APPLICATION NUMBER: 60/081,380
                                                                                                                                                                                                                                                                                                                                                                                               quence 42,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPLICANT: Siegel, Donald L.

ITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL

ITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                  ZIP: 22040-0747
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                             ent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                     TOWNER OF SEQUENCES: 42
                                                                                                                                                              STREET: PO CHURCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
   APPLICATION NUMBER:
                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                  ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/028,550 FILING DATE: 1996-10-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ILING DATE: 1998-04-10
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                  APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIPDRF
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                                                                                                                                                                                                                                                                                                                                                                                               Application US/08232081B
                                                                                                                                                                                              E: BIRCH, STEWART,
PO BOX 747
                                                                                                                                                                                                                                                                    WIJDENES, JULIE
NOGUCHI, HIROSHI
                                                                                                                                             USA
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                               Patentin Release #1.0, Version #1.30
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98.1%;
US/08/232,081B
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Pred. No. 1.3e-41;
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Best Local Similarity
                                                                                    APPLICATION NUMBER: US 08/
FILING DATE: 18-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 12-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 09-DEC-1992
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                                                                                                                                                                                                          PRIOR APPLICATION DATA:
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                            PRIOR APPLICATION DATA:
                                                         APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPLICANT:
                                                                                                                                                                                                                                          APPLICATION NUMBER: US/0
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                 Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                            500 West Madison
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                                                                                                                                                                                                                                                                                        PatentIn
                                                                                                                                                                                                                                                                                                      E: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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linear
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04-NOV-1991
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                                                                                                                                                                                                                                                                                        Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gary M
                                                         US 07/901,707
                                                                                                      US 07/988,430
                                                                                                                                                  US 08/064,691
                                                                                                                                                                                               US 08/425,336
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son Street, 34th
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Pred. No. 2e-41;
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JS-08-488-113B-150
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          quence 150, Application US/08477484B
                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 08/425,550 FILING DATE: 18-APR-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
US 08/064,691
                                    PRIOR APPLICATION DATA:
                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25
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                                                                                                         APPLICATION NUMBER: US 0
                                                                                                                                                                APPLICATION NUMBER: US 01 FILING DATE: 12-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
APPLICATION NUMBER: US 07/787,567 FILING DATE: 04-NOV-1991
                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                                      CLASSIFICATION: 530
IOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                ING DATE:
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                                                     JMBER: US 07/901,707
19-JUN-1992
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97.2%;
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                                                                                                                            US 07/988,430
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son Street, 34th floor
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Pred. No. 4.5e-41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
STREET:
CITY: Chicago
CITY: Illinois
                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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                                                                                                              FILING DATE: 12-MAY-
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                                                  APPLICATION NUMBER:
                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                  APPLICATION NUMBER: PCT/
FILING DATE: 12-MAY-1994
                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TLE OF INVENTION:
                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 13-MAY
                                                                                                                                                                                                                                                                                                    SOFTWARE:
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5837491
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05; Conservative
                                                                                   DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108 amino acids
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500 West Madison Street, 34th floor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carroll, Stephen F. Studnika, Gary M.
                                                                                                                                                                                                                                                                                                 PatentIn Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                    TUMBER: US/08/646,360
13-MAY-1996
                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                19-JUN-1992
                                                                                 JMBER: US 07/988,430
09-DEC-1992
                                                                                                                                12-MAY-1993
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173
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                                                                                                                                                 US 08/064,691
US 07/787,567
                                                US 07/901,707
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Pred. No. 4.5e-41;
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US-08-839-765-150
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NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                          CLABSITION DATA:
PRIOR APPLICATION NUMBER: US 08/425,336
                          PILING DATE: 19-JUN-:
PRIOR APPLICATION DATA:
                                                                            PRIOR APPLICATION DATA:
                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                 FILING DATE: 18-APR-
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: PILING DATE: 04-NC
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                                                                                                                                               APPLICATION NUMBER: US 0 FILING DATE: 12-MAY-1993
                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/839,765
FILING DATE: 15-APR-1997
                                                            APPLICATION NUMBER: US 07/901,707
                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Illinois
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500 West Madison Street, 34th floor
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                                              19-JUN-1992
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97.2%;
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            US 07/787,567
                                                                                                                                                               US 08/064,691
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Pred. No. 4.5e-41;
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                                                                                                                                                                                                                                                                                                                         Version #1.25
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US-09-136-389-150
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                               COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                            PRIOR APPLICATION DATA:
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STREET:
Clive Chicago
CITY: Chicago
Illinois
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TELECOMMUNICATION INFORMATION
TELEPHONE: 312/707-8889
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                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TLE OF INVENTION:
                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                              CLASSIFICATION:
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                                                             CATION NUMBER:
                                                                                                            CATION NUMBER:
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12-MAY-1993
                                            19-JUN-1992
                                                                                          09-DEC-1992
04-NOV-1991
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97.2%;
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               US 07/787,567
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                                                                                                           US 07/988,430
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Pred. No. 4.5e-41;
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RESULT 9
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 PRIOR APPLICATION DATA: APPLICATION NUMBER:
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                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy
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                                                                      APPLICATION NUMBER: US 0 FILING DATE: 12-MAY-1993
                                           APPLICATION NUMBER:
                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 13-MA
                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM:
                                                                                                                                                                                                                                                      APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E OF INVENTION:
                                                                                                                                                                                                                            ASSIFICATION:
                                                                                                                                                                                                           APPLICATION DATA:
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                                                                                                     APPLICATION DATA:
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                                                                                                                                                                           CATION NUMBER: US/0
                                                                                                                                CATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INVENTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DRFSGSGSGTDFTLTISRLEPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                     500 West
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/09610838
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carroll, Stephen F. Studnika, Gary M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Better, Marc D.
                                                                                                                                                                                                                                                                                                  IBM PC compatible YSTEM: PC-DOS/MS-DOS
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                                                                                                                         13-MAY-1996
NIMBER: PCT/US94/05348
                                                                                                                                                                                                                                                                                                                             Floppy disk
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Madison Street, 34th floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95.9%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proteins
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                                                                                                                                                                                                                                                                                    Release #1.0,
                                            US 07/988,430
                                                                                      US 08/064,691
US 07/901,707
                                                                                                                                                              08/646,360
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Pred. No. 4.5e-41;
1; Mismatches 2
                                                                                                                                                                                                                                                                                    Version #1.25
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 312/707-9155
TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/634,278
FILING DATE: 19-DEC-1990
                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/590,274
FILING DATE: 28-SEP-1990
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                                                                                                                  APPLICATION NUMBER: US 07/310,252 FILING DATE: 13-FEB-1989
                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 379 Lytton Avenue CITY: Palo Alto
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NO.
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                                                                                                                                                                                                                                                                                                                                                                                                         California
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                                                                                                                                                                                                                                                                                     PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SELICK, Harol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LANDOLFI, Nicholas F. COELINGH, Kathleen L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCHNEIDER,
                                                                                                                                                                                                                                                                                                                   IBM PC compatible
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NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sung
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97.2%;
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                                                                               US 07/290,975
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11823-002600
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Pred. No. 4.5e-41;
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US-08-477-728-86
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Best Local Similarity 94.4%;
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NFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
             NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 11
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/290,975
FILING DATE: 28-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                  FILING DATE: 19-DEC-
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                               FILING DATE: 28-SEP-1990 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPLICANT: SELICK, Harold ITLE OF INVENTION: IMPROV
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                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 28-SE
                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QUEEN, Cary L.
SCHNEIDER, William P.
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13-FEB-1989
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326-2422
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IMPROVED HUMANIZED
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                                                    11823-002600
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Pred. No. 1.4e-39;
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                                NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 108 amino acid
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                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/290,975
FILING DATE: 28-DEC-1988
                                                               TELEPHONE: (415) 326-2400
                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                          TYCKNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 13-FEB
                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 07-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
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California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 379 Lytton Avenue
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nilarity 94.4%;
Conservative
                                                   (415)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Townsend and Townsend Khourie and Crew
                                                                                                                                                                                                                13-FEB-1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Man Sung
                                                326-2422
                                                                                                                                                                                                                                                                                                                                                                                                                                    PC-DOS/MS-DOS
                                                                                                                                                                                                                                US 07/310,252
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                                86:
                                                                                                11823-002600
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Pred. No. 1.4e-39;
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STRANDEDNESS:

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peptide single

amino acid

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US-08-474-040-86
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                                                                                                                   TELEFAX: (4
                                                                                              TELEFAX: (415) 326-2422
IFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/590,274
PTILING DATE: 28-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               quence 86,
                                                                                                                                                                                                                                                                                           FILING DATE: 13-FEB-1989 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                 PILING DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/310,252
                                                                                                                                                                                                            FILING DATE: 28-UEC ATTORNEY/AGENT INFORMATION:

Smith, William M

10.
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MOLECULE TYPE:
                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
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                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                               IOR APPLICATION DATA:
APPLICATION NUMBER: US 07/634,278
FILING DATE: 19-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/
FILING DATE: 7-JUN-1995
                                                                                                                                                      TELEPHONE:
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                                  COPOLOGY:
                                                                                                                                                                                                      STRATION NUMBER:
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                                                               amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 California
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                                                                                 108 amino acids
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                                                                                                                                                    (415) 326-2400
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              peptide
                                               single
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                                                                                                                                                                                                                                                                         US 07/290,975
                                                                                                                                                                                                     30,223
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Pred. No. 1
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                Query Match
Best Local Similarity
   Matches 102;
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                                                                                                                                                                                               TELEFAX: (415) 326-2422 INFORMATION FOR SEQ ID NO:
                                                                                     TOPOLOGY: 15
                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/290,975
FILING DATE: 28-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
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ADDRESSEE: Townsend and Townsend Khourie and Crew
                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 11
                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 19-DEC-1990
APPLICATION NUMBER: US 07/590,274
                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 13-FEB-1989
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
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STATE: California
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                                                                                                                                        amino acid
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                                                                                                                                                       108 amino acids
   Conservative
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                                                                                                      ss: single
linear
                                                                                     peptide
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                                                                                                                                                                                                                              326-2400
                92.9%;
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                Score 521; DB 4; Length 108; Pred. No. 1.4e-39;
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1; Mismatches 5;
Indels
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Gaps
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Query Match

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Search completed: June 3, 2003, 08:24:15 Job time : 18.4027 secs
                                                                                                                                                                                                                                                                                                 ; LENGTH: 107 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-107-669D-14
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US-08-107-669D-14
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                                                                                                                                                                                                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 202/371-2500
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 107 amino acids
TYPE: amino acid
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 13-DEC-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 14-DEC-:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 202/371-2600
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ADDRESSEE: Sterne, 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPLICATION NUMBER:
                                                                                                                                                                                                                        al Similarity 95.4
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                                                                                                    DRFSGSGSGTDFTLTISRLBPEDFAVYYCQQYGSSPWTFGQGTKVEIK 108
                                                                     DRFSGSGSGTDFTLTTSRLEPGDFAVYYCQQYGSSFXTFGQGTDVBIK 107
                                                                                                                                          EIVLTQSPGTLSLSPGERATLSCRASQSV-SSYLAWYQQKPGQAPRLLIYGASSRATGIP 59
                                                                                                                                                               EIVLTQSPGTLSLSPGERATLSCRASQSVSSSFLAWYQQKPGQAPRLLIYGASSRATGIP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Michele A. Cimbala
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1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           United States of America
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VVENTION: Modified Antibody Variable Domains (as amended)
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14-DEC-1992
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                                                                                                                                                                                                                                          92.2%; Score 517.5; DB 1
95.4%; Pred. No. 2.9e-39;
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                                                                                                                                                                                                                      1; Mismatches
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Result
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title: Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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       g heavy chain v r
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78.1	78.3	78.4	78.4	78.6	78.6	78.7	78.9	79.0	79.1	79.2	79.3	79.4	79.6	79.7	19.9
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ALIGNMENTS

RESULT 2 G36005 Ig heavy chain V region (M74) - human C;Spectes: Homo sapiens (man) C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990 #text_change 16-Dec-1998 C;Accession: G36005 R;Schroeder Jr., H.W.; Wang, J.Y. Proc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990 A;Title: Preferential utilization of conserved immunoglobulin heavy chain variable gene A;Reference number: A36005; MUID:90349571; PMID:2117273 A;Accession: G36005 A;Residues: Dreliminary A;Molecule type: mRNA A;Residues: 1-121 <sch> A;Cross-references: GB:M34031 C;Genetics: A;Gene: GDB:IGH@; IGHDY1</sch>	OY OF THE STANKS TO SECURISATE LEGISLATION TO THE PROTECTIVE STANKS OF THE STANKS OF	Query Match 89.0%; Score 563.5; DB 2; Length 121; Best Local Similarity 88.4%; Pred. No. 4.7e-44; Matches 107; Conservative 6; Mismatches 1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFTSYDGSNKHY	#text_change 20-Jun-2000 Cafferty, J.; Griffiths, A.D., W

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A;Note: the nucleotide sequence was submitted to the EMBL Data Library, C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-118 < RAA>
A; Cross-references: EMBJ
                                                                                                                             Eur. J. Immunol. 22, 247-251, 1992
A;Title: Restricted utilization of germ-line V(H)3 genes
A;Reference number: S31104; MUID:92111633; PMID:1730252
A;Accession: S31116
                                                                                                         A; Status: preliminary; nucleic acid sequence
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A;Map position: 1402.33-14032.33
C;Superfamily; immunoglobulin V region; immuno
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
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A;Accession: S31598
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;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
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;Superfamily: immunoglobulin V region; immunoglobulin
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Pred. No. 1.8e-43;
5; Mismatches 8
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C;Keywords: neur
F;15-98/Domain:
                                                                                            A;Note: the nucleotide sequence was submitted to the EMBL Data Library, C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
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Bur. J. Immunol. 22, 247-251, 1992
A;Title: Restricted utilization of germ-line V(H)3 genes
A;Title: Restricted utilization of germ-line V(H)3 genes
                                                                                                                                                                                                                                                                                                             C;Species: Homo sapiens (man)
C;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
C;Accession: S31117
C;Accession: S31117
C;Accession: F.M.; Timmers, E.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.
                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 1-122 < RAA>
                                                                                                                                                                                                                   A; Status: preliminary; nucleic acid
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C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995
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A;Molecule type: mRNA
A;Residues: 1-137 <CUI>
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A; Accession: S31701
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                      Query Match
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ilarity 86.4%;
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88.1%;
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Score 549; DB
Pred. No. 9.6e
4; Mismatches
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Pred. No. 8.8e-43;
5; Mismatches 11
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Pred. No. 6.1e-43;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                k;Cuisinier, A.M.; Gauthier, L.; Boubli, L.; F
submitted to the EMBL Data Library, June 1992
v;Description: Mechanisms that generate human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ig heavy chain precursor V region (mu) - human (fragment)
; Species: Homo sapiens (man)
; Species: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Molecule type: mRNA; Residues: 1-140 < CUI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;Accession: S70442;Cussion: S70442;Accession: S70442;Cussinier, A.M.; Fumoux, F.; Fougereau, M.; Tonnelle, iol. Immunol. 29, 1363-1373, 1992
iol. Immunol. 29, 1363-1373, 1992
iTitle: IgM kappa/lambda EBV human B cell clone; an ear, Reference number: S70442; MUID:93024508; PMID:1383695;Accession: S70442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     y heavy chain V region - human (fragment)
|Species: Homo sapiens (man)
|Date: 22-Nov-1993 #sequence_revision 10-
                                                                                                                                                                                                                                                                                                                                   Superfamily: immunoglobulin V
                                                                                                                                                                                                                                                                                                                                                                             Molecule type: mRNA
Residues: 1-134 <CUI>
                                                                                                                                                                                                                                                                                                                                                                                                                      Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                              Reference number: S31585
Accession: S31679
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                                                                                                                                                                                                                                                                                                                Supertamily: immunoglobulin V region; im Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                       Cross-references: EMBL: 214203; NID: g30965;
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                                       ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARE---SRGDYWGQGTLVTVSS
                                                                              ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
                                                                                                                       QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 79
                                                                                                                                                              QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY 60
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87.5%;
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Pred. No. 2.2e-42;
3; Mismatches 7
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Pred. No. 1.4e-42;
5; Mismatches 8
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A;Map position: 14q32.33-14q32.33
C;Superfamily: immunoglobulin V region; immunoglobulin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Schroeder Jr., H.W.; Wang, J.Y. Proc. Natl. Acad. Sci. U.S.A. 87, A;Title: Preferential utilization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ig heavy chain V region (M72) - human C; Species: Homo sapiens (man) C; Date: 21-Dec-190 | #sequence_revision C; Accession: E36005
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A; Residues: 1-122 <SCH>
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           roc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990;Title: Preferential utilization of conserved immunoglobulin heavy;Reference number: A36005; MUID:90349571; PMID:2117273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Status: preliminary
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;Accession: S46390
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89.0%; Pred. No. 2.1e-42;
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Pred. No. 2.7e-42;
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RESULT 13
F36005
 Ig heavy chain V region (M49) - human C/Species: Homo sapiens (man) C/Date: 21-Dec-1990 #sequence_revision
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: S31585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    submitted to the EMBL Data Library, June
                                                                                                                                                                                                                                                                                                                                                                                                                             A,Residues: 1-132 <CUI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cross-references: EMBL:X62951
Cross-references: EMBL:X62951
Note: the nucleotide sequence was submitted to the EM;Superfamily: immunoglobulin V region; immunoglobulin
'Yavwords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ._____.Bate: Homo sapiens (man)
;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
;Accession: S31112
;Raaphorst, F.M.; Timmers, E.; Kenter, M.J.H.: """
;Title: """
;Title: """
;Title: """
;Title: """
                                                                                                                                                                                                                                                                                                                                               ;Cross-references: EMBL:Z14168; NID:g310999; PIDN:CAA78537.1; PID:g31000; Superfamily: immunoglobulin V region; immunoglobulin homology; Keywords: heterotetramer; immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description: Mechanisms that generate
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Best Local
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Title: Restricted utilization of germ-line V(H)3 genes; Reference number: S31104; MUID:92111633; PMID:1730252; Accession: S31112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Accession: S31603
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Best Local Similarity
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                                                                                                                                                                ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
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 #sequence_revision
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Pred. No. 5e
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Pred. No. 4.1e-42;
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21-Dec-1990 #text_change 16-Dec-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RYLLUNICA, -, -, 21, 2355-2363, 1991

RYLLUNICA, -, -, 21, 2355-2363, 1991

A;Title: Diversity of immunoglobulin heavy chain gene segment

A;Title: Diversity of immunoglobulin heavy chain gene segment

A;Title: Diversity of immunoglobulin heavy chain gene segment

A;Title: Diversity of immunoglobulin heavy chain gene segment
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C;Superfamily: immunoglobulin V region; immunoglobulin C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM>
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A; Residues: 1-133 < TIM>
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Eur. J. Immunol. 21, 2355-2363, 1991
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C;Accession: A49028
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A; Residues: 1-119 < SCH>
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Proc. Natl. Acad. Si. U.S.A. 87, 6146-6150, 1990

A;Tille: Preferential utilization of conserved immunoglobulin heavy chain variable

A;Reference number: A36005; MUID:90349571; EMID:2117273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain V-III region - human (fragment)
C;Species: Homo sapiens (man)
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7:15-98/Domain: immunoglobulin homology 
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Best Local :
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                                                                                                                     ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWL-----GPFDYWGQGTLVT 115
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VSS 123
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Pred. No. 9.3e-42;
3; Mismatches 10;
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Pred. No. 5.5e-42;
4; Mismatches 10
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Ig heavy chain V region C/Species: Homo sapiens

(man)

human

(fragment)

RESULT S31674

Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999

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Search completed: June 3, 2003, 08:22:39
Job time: 21.3447 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Status: preliminary;
;Molecule type: mRNA;
;Molecule type: mRNA;
;Residues: 1-139 <CUI>;Cross-references: EMBL.Z14204; NID:g30967; PIDN:CAA78573.1; PID:g30968;
;Cross-references: EMBL.Z14204; NID:g30967; PIDN:CAA78573.1; PID:g30968;
;Superfamily: immunoglobulin themunoglobulin homology;
;Reywords: heterotetramer; immunoglobulin
;34-117/Domain: immunoglobulin homology <IMM>
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;Cuisinter, A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.
ubmitted to the EMBL Data Library, June 1992
;Description: Mechanisms that generate human immunoglobulin diversity operate from the Reference number: S31585
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 85.0
Best Local Similarity 85.4
Matches 105; Conservative
                                                                                                                137 VSS 139
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85.4%;

    $; Score 538; DB 2; Length 139;
    $; Pred. No. 1.1e-41;
    4; Mismatches 6; Indels

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Maximum
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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HUJH HUMAN
HUJA MOUSE
                  HV3Q_HUMAN
HV01_RAT
   HV28_MOUSE
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DT 21-:
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Best Local Similarity
Matches 95; Conserv
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MOD_RES 1 1 1

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SEQUENCE 122 AA,
21-JUL-1986
21-JUL-1986
15-JUL-1999
                                                                          HUMAN
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21-JUL-1986
                                            P01770;
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HSSP; P01772; 2FB4.
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15-JUL-1999
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                                                          HUMAN
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	ALIGNMENTS					
P80419 homo sapien	HV3V_HUMAN	4	118	61.3	388	Ü
mus	HV24 MOUSE	μ	123	61.4	388.5	4.
P01794 mus musculu	HV25_MOUSE	Н	123	61.5	389.5	Ü
hom	HV3R_HUMAN	_	116	61.8	391.5	2
anm	HV20_MOUSE	۲	122	61.9	392	Ξ
P18525 mus musculu	HV54 MOUSE	ш	117	61.9	392	0
mug	HV17_MOUSE	۲	117	62.3	394.5	9
	HV29 MOUSE	_	113	62.6	396.5	8
	HV3P_HUMAN	_	119	62.7	. 397	7
	HV41_MOUSE	-م	117	62.8	397.5	õ
	HV02 CANFA	_	117	63.1	399.5	ű
	HV34_MOUSE	س ر	113	63.1	399.5	4

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Lehman D.W., Putnam F.W.;

"Amino acid sequence of the variable region of a hullocation of a possible JH segment.";

Proc. Natl. Acad. Sci. U.S.A. 77:3239-3243(1980).

-!- MISCELLANEOUS: THIS MU CHAIN WAS ISOLATED FROM
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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Lehman D.W., Putnam F.W.;
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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15-JUL-1999 (Rel. 38, Last annotation updat
Ig heavy chain V-III region CAM.
Jomo Bapiens (Human)
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(Rel. 01, Created)
(Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
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Pred. No. 3.2e-46;
3; Mismatches 10
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Best Local :
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P01769;
                                                                                       SEQUENCE.
MEDLINE=74175307; PubMed=4208843;
                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
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HSSP; P01772; 2FB4.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                     21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
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Dreker L., Schwarz J., Reichel W., Hilschmann N.;
"Rule of antibody structure. The primary structure of a monoclon Igg1 immunoglobulin (myeloma protein Nie), I: Purification and characterization of the protein, the L- and H-chains, the cyanogen bromide cleavage products, and the disulfide bridges.";
Hoppe-Seyler's Z. Physiol. Chem. 357:1515-1540(1976).
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MEDLINE=77070269; PubMed=826475;
Ponstingl H., Hilschmann N.;
The rule of antibody structure. The
                                                                     Florent G.,
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                           ent G., Lehman D., Putnam F.W., switch point in mu heavy chains hemistry 13:2482-2498(1974).
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llarity 78.5%;
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Pred. No. 2e-4
LO; Mismatches
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ein Nie). III. The
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                                           immunoglobulins.";
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SEQUENCE, AND DISULFIDE BONDS.
MEDLINE-83289131; PubMed=6884994; Hilschmann N.;
Schmidt W.E., Jung H.-D., Palm W., Hilschmann N.;
"Three-dimensional structure determination of antibodies."
"Three-dimensional structure determination of antibodies."
"Three-dimensional structure of crystallized monoclonal immunoglobulin IgG1
structure of crystallized monoclonal immunoglobulin IgG1
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Homo sapiens (Human).
Eukaryota; Metazoa; C
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SMART; SM00406; IG:
Immunoglobulin V r
                                                                                                                                                PIR; A02055; G1HUKL.
PDB; 2FB4; 12-JUL-89
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P01772;
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SMART; SM00406; IGv; 1.
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InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
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Pred. No. 1.
                                                                            PYRROLIDONE CARBOXYLIC ACID
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P01771;
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
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"Amino acid sequence of the VH region
cryoimmunoglobulin IgG Hil.",
Biochemistry 18:553-560(1979).
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InterPro; IPR003596; Ig_v.
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HSSP; P01772; 2FB4.
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MEDLINE=79124695; PubMed=420800;
MEDLINE=79124695; PubMed=420800;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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15 heavy chain V-III region HIL.
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Query Match
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON TER 116
SEQUENCE 116 AA; 12730
                                 21-JUL-1986 (Rel. 01, Create 21-JUL-1986 (Rel. 01, Last a 15-JUL-1999 (Rel. 38, Last a Ig heavy chain V-III region Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
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21-JUL-1986
15-JUN-2002
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HSSP; P01772; 2FB4.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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P01781;
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(Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
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                                                                                                                                          STANDARD;
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Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                12730 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                         73.5%;
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                                                   WEA.
                                                                                                                                                                                                                                                                                                                                                                       Score 465; DB
Pred. No. 6.5e
9; Mismatches
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                                                                                                                                           PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                            2C67CA9AAAAA1282 CRC64;
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.5e-41;
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Matches 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HV16_MOUSE
P01783;
                                                                                                                                                                                                                                                                  modified
entities
                                                     EMBL; J00522; AAD15290.1;
PIR; A02066; G1MS21.
HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of sloinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its the buropean Bioinformatics Institute. There are no restrictions on its use of the property of the suppose of the suppo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Heavy chain variable region contribution antibodies: somatic mutation evident in a Cell 24:625-637(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701/07,
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
17 d heavy chain V region MOPC 21 precursor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=81234548;
Bothwell A.L.M., 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; |
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goni F., Frangione B.;

"Amino acid sequence of the Pv region of a human monoclonal information with antibody activity against 3,4-pyruvylated galactose in Klebsiella polysaccharides K30 and K33.";

Proc. Natl. Acad. Sci. U.S.A. 80:4837-4841(1993).

-i- MISCELLANEOUS: THIS CHAIN WAS OBTALNED FROM A MONOCLONAL AGAINST 3,4-PYRUVYLATED GALACTOSE AND ISOLATED FROM A PARAGRAINST 3,4-PYRUVYLATED GALACTOSE AND ISOLATED FROM A PARAGRAIN AND ISOLATED FROM A PARAG
                                                                                                                                                                                                             entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Adetugbo K., Milstein C., Secher D. "Molecular analysis of spontaneous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 17-136.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baltimore D.;
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InterPro; IPR003596; Ig_v.
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HSSP; P01772; 2FB4.
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; SM00406; IGv; 1.
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                                                                                                                                                                                                                                                                                             non-profit institutions as long and this statement is not removed.
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        IPR003006;
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Paskind M., Reth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=401950;
tein C., Secher D.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          114
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Pred. No. 3.3e-40;
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                                                                                                                                                                                                                                                     (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Imanishi-Kari T.,
                                                                                                                                                                                                                                                                                                                                     There are no restrictions ng as its content is in
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Best Local S
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Matches
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Best Local
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NON TER
SEQUENCE
                                                                                                                                                                                                                                                                        MOD_RES
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Ig heavy chain V-III region BUR.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Verte
Mammalia; Eutheria; Primates; Catarrhini; Hom
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SEQUENCE
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NON TER 1 1
SIGNAL <1 16
                                                                                                                                                                                                                                                                                                                                                                                                                                           Putnam F.W., Liu Y.-S.V., Low T.L.K.; "Primary structure of a human IgAl immunoglobulin. I IgAI procease, digestion, Fab and Fc fragments, and amino acid sequence of the alpha 1 heavy chain."; J. Biol. Chem. 254:2865-2874
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE (MYELOMA PROTEIN BUR) .. MEDLINE=79151016; PubMed=107164;
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                                                                                                                                                                                                                                                                                                                               SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; A02056; A1HUBR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam;
                                                                                                                                                                                                                                                                                                                                                                                       nterPro;
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PF00047; ig; 1.
PF000406; Idv; 1.
PYRROLIDONE CARBOXYLIC
PYRROLIDONE CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                             P01772; 2FB4.
Pro; IPR003006; Ig_MHC.
Pro; IPR003596; Ig_v.
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; SM00406; IGv;
                       61
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                                                                                                                                         83;
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90; Conserv
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                                                                                                                                                          Similarity
ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCAR-TGWLGPFDYWGQGTLVTVS
                                                             QVQLVESGGGVVQAGTSLRLSCTASAFNLSDYAMHWVRQAPGKGLZWVALISYGGSBTYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPF---DYWGQGTLVTVSS
                                                                                               QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
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70.3%;
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                                                                                                                                     Score 449.5;
Pred. No. 2.6e
13; Mismatches
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DN -> ND (IN REF. 2)
W -> H (IN REF. 2).
Y -> W (IN REF. 2).
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Pred. No. 4e-40;
0; Mismatches
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                                                                                                                                                                                                              12A709A75344D024 CRC64;
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les 21;
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ADSVRGRFTISRBISKBTLYLZMKTLRTEDTAVYYCAKLIAVAGTRBFWGQGTLVTVS 118

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Best Local S
Matches 84
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HSSP; P01772; 2FB4.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON_TER 120 120
                                                                                              21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
19 heavy chain V-III region POM.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eukaryota; Butheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=80020921; PubMed=114209; Steiner L.A., Garcia Pardo A., Margolies M.N.; Steiner L.A., Garcia Pardo A., Margolies M.N.; "Amino acid sequence of the heavy-chain variable crystallizable human myeloma protein Dob."; Biochemistry 18:4068-4080(1979).
MEDLINE=75046755; PubMed=4139708;
Capra J.D., Kehoe J.M.;
Capra J.D., Kehoe J.M.;
of the heavy chain variable regions of two immunoglobulin M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=80020920; PubMed=114208; Steiner L.A., Lopes A.D.; "The crystallizable human myeloma
                                                                                                                                                                                                  HV3M_HUMAN
P01774;
                                                                                                                                                                                                                              HUMAN
                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biochemistry 18:4054-4067(1979).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ig heavy chain V-III region Do
Homo sapiens (Human)
Eukaryota, Metazoa, Chordara,
Mammalia, Eutheria, Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HV3U_HU
P01782;
                                                                                   NCBI_TaxID=9606;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Ig heavy chain V-III region DOB.
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                                                                                                                                                                                                                                                                                                                                           EVOLVESGGDLVQPGRSLRLSCAASGFNFHEYNMHWLRQGPGKGPEWVSTITWNGGSVLY
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                                                                                                                                                                                                                                                                                   VKGRFAISRDNAQKTLYLQLNILRPEDTAFYYCAKGYIWNGNWFDSWGQGTLVTVSS
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70.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 433; DB 1;
; Pred. No. 1.3e-37;
13; Mismatches 21
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Best Local S
Matches 84
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InterPro; IPR03006; Ig_wHC.
InterPro; IPR030596; Ig_v.
Pfam; PF00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON TER 119 119
SEQUENCE 119 AA; 12858 MW;
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InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_V.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGV; 1.
Immunoglobulin V region.
VARIANT 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cappra J.D., Kehoe J.M.;
Cappra J.D., Kehoe J.M.;
"Structure of antibodies with shared idiotypy: the complete
"f the heavy chain variable regions of two immunoglobulin M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-JUL-1986
21-JUL-1986
15-JUL-1999
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P01775;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    anti-gamma globulins.";
Proc. Natl. Acad. Sci. U.S.A.
-!- MISCELLANEOUS: THIS CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR, A02058; M3HULY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=75046755; PubMed=4139708
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Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                          l Similarity
84; Conserv
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                                                        VQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTF1SYDGSNKHYA
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119
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01, Last sequence up
38, Last annotation
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                                                                                                                      Score 430; DB
Pred. No. 2.6e
14; Mismatches
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Pred. No. 1.6e-37
6; Mismatches 1:
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/FTId=VAR_003966.
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WAS ISOLATED FROM
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WAS ISOLATED FROM
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RESULT 14
HV38 MOUSE
ID HV38
AC P0180
DT 21-JU
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OS Mus m
OC Eukar
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                               HV38 MOUSE STANDARD; PK.

HV38 MOUSE STANDARD; PK.

P01808;

I 21-JUL-1986 (Rel. 01, Created)

I 21-JUL-1986 (Rel. 01, Last seque)

I 15-JUL-1999 (Rel. 38, Last anno)

C 15-JUL-1999 (Rel. 38, Tast anno)
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Best Local (
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SEQUENCE
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Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region; Signal.
Inmunoglobulin 1 19
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21-JUL-1986
15-JUL-1999
    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; J00236; AAA53516.1; -. EMBL; M35415; AAA58735.1; -. EMBL; A02047; H3HU26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as low modified and this statement is not remove entities requires a license dyreement (so or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=81101090; pubMed=6450418;
Matthyssens G., Rabbitts T.H.;

"Structure and multiplicity of genes for the human heavy chain variable region.";

Proc. Natl. Acad. Sci. U.S.A. 77:6561-6565(1980).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genew; HGNC:5545; IGHV@.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                nterPro;
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                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                 GDSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAK 117
                                                                                                                                                                                                                                      EVOLLESGGGLVOPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSTYY
                                                                                                                                                                                                                                                                                                                                                                                                                                               IPR003006; Ig_WHC.
IPR003596; Ig_v.
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117
117 AA;
                                                                                                                                                                                                                                                                                              Conservative
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(Rel. 01, Last seq
(Rel. 38, Last ann
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01, Last sequence update)
38, Last annotation update)
III region VH26 precursor.
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                                                                                                                                                                                                                                                                                                                                                    12582 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ry is copyright. It is produced through Institute of Bioinformatics and the Evormatics Institute. There are no restrinstitutions as long as its content attement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
                                                        Last sequence up
                                                                                                                                                                                                                                                                                         Score 429; DB 1; Ler
Pred. No. 3.2e-37;
Migmatches 9;
                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                            IG HEAVY CHAIN V-III REGION VH26.
Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                               PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
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                                                                        update)
                                                                                                               119 AA
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                                                        update)
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                                                                                                                                                                                                                                                                                                                      Length 117;
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Mismatches

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Query Match
Best Local S
Matches 85
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Best Local S
Matches 79
                                                                  InterPro; IPR003006; Ig_M
InterPro; IPR003596; Ig_V
Pfam; PP00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON_TER 120 120
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SMART; SM00406; IGv; i.
Immunoglobulin V region.
NON TER 119 119
SEQUENCE 119 AA; 13169
                                                                                                                                                                                                                                                                                 MEDLINE=77117674; PubMed=65324; Capra J.D., Hopper J.E.;
                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                Ig heavy chain V-III
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1986 (Rel.
21-JUL-1986 (Rel.
15-JUL-1999 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; A02078; AVMST6.
HSSP; P01810; 2FBJ.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
                                                                                                                                                       PIR; A02049; M3HUBW.
HSSP; P01772; 2FB4.
                                                                                                                                                                                                             Immunochemistry 13:995-9
                                                                                                                                                                                                                       region of the IgM paraprotein.";
Immunochemistry 13:995-999(1976)
                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                        P01766;
21-JUL-1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HV3E HUMAN
                                                                                                                                                                                                                                                     "Comparative studies on monotypic individual patient. III. The compl
                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complementarity-determining regions.";
Proc. Natl. Acad. Sci. U.S.A. 76:2890-2894(1979)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rao D.N., Rudikoff S., Krutzsch H., Potter M.;
"Structural evidence for independent joining region gene in immunoglobulin heavy chains from anti-galactan myeloma proteins its potential role in generating diversity in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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[1]
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                                                                                                                                                                                             MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM IGM ISOLATED FROM SERUM OF A PATIENT WITH MALIGNANT LYMPHOMA OF THE WALDENSTROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THAT BINDS GALACTAN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
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                                                       120 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
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01, Last sequence update)
38, Last annotation update)
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                                                       13227 MW;
                                                                                                                     Ig_MHC.
             67.2%;
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           Score 425.5;
Pred. No. 7.
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Pred. No. 6.6e-37;
7; Mismatches 22
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                                                      D3F0428F7C2E6410 CRC64;
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sequence of the
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EVQLVESGGGIVQPGGSLRLSCAASGFTFSYYNMMVRQVTGKGLEWVSAIGTAG-DQYY 59	
61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGT 112	
60 ADSVKGRFTISRNDSKNTLYLNNNSLRAEDTAVYYCARSPVSLVDGWLYYYYGSVWGQGT 119	
Search completed: June 3, 2003, 08:15:45 Job time : 11.8737 secs	
GGSLRLSCAASGFTFSYYNNWVRQY SKNTLYLQMNSLRABDTAIYYCART	TGKGLEWVSAIGTAG-DQYY 59GWLGPFDYWGQGT 112

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Minimum
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Perfect score:
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Listing first 45 s
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Copyright (c) 1993 - 2003 Compugen Ltd.
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 Q9UL84
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Best Local Similarity
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SEQUENCE
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003006; Ig_wHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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MEDLINE=98277139; PubMed=9614934;
MEDLINE=98277139; PubMed=9614934;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9UL93
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                                                                             VQLVESGGGVVQPGRSLRLSCAASGFTFSSYTWHWVRQAPGKGLEWVTFISYDGSNKHYA
VQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYYA
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89.7%;
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                                                                                                                                                                                      Score 543.5;
Pred. No. 2e-
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DSVKGRFTVSRDNSKNTLYLQMNSLRAEDTALYYCARTGWLGPFDYWGQGTLVTVSS

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RESULT 3
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InterPro; IPR003599; Ig.
InterPro; IPR003597; Ig_c1.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Dfam. BE000A77; ig. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
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01-MAR-2002
01-JUN-2002
                                                                                                                                     SEQUENCE FROM N.A. MEDLINE=98277139; F
                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00047; ig; 5.

SMART; SM00409; IG; 2.

SMART; SM00400; IGC1; 4.

SMART; SM00406; IGV; 1.

PROSITE; PS00290; IG MHC; UNKNOWN 3.

Hypothetical protein.

SEQUENCE 613 AA; 67296 MW; 60C7F
                                      "Myosin-reactive autoantibodies in rheumatic carditis fetus.";
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                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
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Mammalia; Eutheria; Primates;
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01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 67.3 kDa protein.
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                                                                                                              Young D.C.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAK-DWSEGVETFDIWGQGTMVTVS
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Immunopathol. 87:184-192(1998).
                                                                                                                                     PubMed=9614934;
n der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85.3%;
86.0%;
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Pred. No. 3.9e-48;
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                                                                                                                                             Kalis
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RESULT Q9Y509

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Matches 99
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Best Local Sim:
Matches 101;
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NON_TER
SEQUENCE
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(Fragment).

Homo sagniens (Human).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;

Mammalia; Butheria; Primates; Catarrhini; Hominidae;

MCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9UL84;
01-MAY-2000
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InterPro;
                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                       SMART;
                                                                                                                                                                                                                                 Pfam, PF00047; ig;
                                                                                                                                                                                                                                                                                                                              Young D.C.
                                                                                                                                                                                                                                                                                                                                      MEDLINE=98277139; PubMed=9614934; Wu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                               Myosin-reactive
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SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AF035024; AAD56260.1; HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                      HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                  "Myosin-reactive autoantibodies in rheumatic carditis
                                                                                                                                                                                                                                          nterPro; IPR003006; Ig_MHC.
nterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                               EQUENCE FROM N.A.
121
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                                                                                                                                                                                                                SM00406; IGv; 1.
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                                                                ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCA---RTGWLGP-FDYWGQGTLVTV 116
                                                                                       EVQLVESGGGVVQPGRSLRLSCAASRFTFSNYGMHWVRQAPGKGLEWVAAISNDGSNKFY
                                                                                                       QVQLVESGGGVVQPGRSLRLSCAASGETFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                   SS-
                                             ADSVKGRFTIFRDNSKNMMDLOMNSLRAEDTAVYYCAKDERGRLVGTYFDYWGOGTLVTV
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IPR003596; Ig_v.
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122 AA;
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                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                             RMBLrel. 13, Last sequence update)
EMBLrel. 19, Last annotation update)
immunoglobulin heavy chain variable
                                                                                                                                                                                                                                                                                AAD56266.1;
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81.1%;
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                                                                                                                                                  Score 494; DB 4;
Pred. No. 3.3e-44;
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                                                                                                                                                                                    36054D41366545B8 CRC64;
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                                                                                                                                                            DB 4; Length 122;
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      EMBL; AF035043; AAD56279.1; -
HSSP; P01772; 2FB4.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
NON_TER
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Bukaryota; Metazoa; Cl
Mammalia; Eutheria; Pl
NCBI TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                          SECUENCE FROM N.A.
MEDLINE-98277139; PubMed-9614934;
MEDLINE-1: B. Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-2000 (TrEMBLrel: 13, Created)
01-MAY-2000 (TrEMBLrel: 13, Last sequence update)
01-DEC-2001 (TrEMBLrel: 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                               Wu X., Liu B., Van Young D.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9UL71
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=96071149; PubMed=7475288;
Cao J., Vescio R.A., Rettig M.B., Hong
Lichtenstein A.K., Berenson J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1999
01-DEC-2001
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                                                                                                                                                                                                                                                                                             Myosin-reactive autoantibodies in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fragment)
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                                                                                                                                                                                                  Immunol. Immunopathol. 87:184-192(1998) AF035043; AAD56279.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGŚVKGRFTIŚRDNŚKNTLYLOMTŚLRVEDTAVYYCAKDGNYFDSVGYYYAGIDYWGQGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147 AA; 15768 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TrEMBLrel. 12,
(TrEMBLrel. 12,
(TrEMBLrel. 19,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.0%;
74.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 494; DB 4;
Pred. No. 4.2e-44;
9; Mismatches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8489FCAAA7BC925C CRC64;
                                                                                                                                                                                                                                                                                                 rheumatic carditis and normal
                                                                                                                                                                                                                                                                                                                                                              Kalis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
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                                                                                                                                                                                                                                                                                                                                                              Berney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 147;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lee
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Best Local (
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Best Local
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                                                                                                                                                                                                                                                                         InterPro; IPR003597; I
InterPro; IPR003006; I
InterPro; IPR003596; I
Pfam; PF00047; 1g; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2002
01-MAR-2002
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON TER
                                                                                                                                                                                                            Hypothetical SEQUENCE 5
                                                                                                                                                                                                                             PROSITE; PS00290; IG_MHC; UNKNOWN_2.
                                                                                                                                                                                                                                                    SMART; SM00409; IG; 1.
SMART; SM00407; IGC1; 3.
                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
Submitted (JAN-2002)
EMBL; BC021276; AAH2
                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                          InterPro; IPR003599;
InterPro; IPR003597;
                                                                                                                                                                                                                                                                                                                                                                  TISSUE=TONSIL;
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q8WU38
                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28WU38;
                                                                                                                                                                                                                                                                                                                                                                                                CBI_TaxID=9606;
æ
                                                                                                                                                                                                                                                                                                                                                                                                                                           ypothetical 63.0 kDa protein.
                                140
                                                   115 TVSS 118
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                                                                                                                                                                92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94;
                                                                                                                                                                                                                                            SM00406; IGv;
                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                 SSVT
                                                                          ADSVKGRFTISRDNAKNSLYLQMNSLRAEDTALYYCAKHGSGSYIGYYYGMDVWGQGTTV 139
                                                                                         ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCARTG----WLGPF---DYWGQGTLV
                                                                                                                   EVQLVESGGGLVQPGRSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSGISWNSGSIGY
                                                                                                                                        QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCAR---TGWLGPFDYWGQGTLVTVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EVOLVESGGGVVOPGGSLRLFCAASGFTFDGYAMHWVRQAPGKGLEWVSLISGDGGSTYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADSVKGRFTISRDNSKNSLYLOMNSLRAEDTALYYCAKGKVTTIYDRFDIWGQGTMVTVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
121 AA;
                                                                                                                                                                                                          1 protein
573 AA; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLIEL: 20, (TrEMBLIEL: 20, (TrEMBLIEL: 21,
                                                                                                                                                              75.5%;
llarity 74.2%;
Conservative 1
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                                                                                                                                                                                                                                                                                                                                 2002) to the AAH21276.1;
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13154 MW;
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Ig_MHC.
                                                                                                                                                                                                          62967 MW;
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77.7%;
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                                                                                                                                                              Score 478; DB 4;
Pred. No. 1.1e-41;
4; Mismatches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 488.5; DB 4
Pred. No. 1.2e-43;
); Mismatches .15
                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; l
Catarrhini; Hominidae;
                                                                                                                                                                                                          FD072344033AC530 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2F045CCFA5D50736 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
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                                                                                                                                                                12;
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                                                                                                                                                                                  Length 573;
                                                                                                                                                               Indels
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PRELIMINARY; (TrEMBLrel. (TrEMBLrel.

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Best Local S
Matches .92
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Best Local &
                                                                                                                                                                                   Strausberg R.;
Submitted (CCT-2001) to the EMBL/GenBank/DDBJ
EMBL; BC015760; AAH15760.1; .
InterPro; IPR003006; Ig_MHC.
Pfam; PP00047; ig; 5.
PROSITE; PS00290; IG_MHC; UNKNOWN_3.
                                                                                                                                                                     Hypothetical protein SEQUENCE 597 AA;
                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Q96BB9
                                                                                                                                                                                                                                                                                                                                                                    Hypothetical 65.0 kDa protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003006; Ig_wHC.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                         SISSUE=B-CELL;
                                                                                                                                                                                                                                                                                                              CBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00047; ig; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP; P01772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Clin. Immunol. Immunopathol. EMBL; AF035023; AAD56259.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; V
Mammalia; Eutheria; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2001 (TrEMBLrel. 19; Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=98277139; PubMed=9614934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Myosin-reactive autoantibodies in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
            80
                 61 ADSVKGRETVSRDNSKNTLYLOMNSLRAEDTAIYYCAR-----TGWLGPEDYWGOGTL 113
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                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                     QVQLVESGGGVVQPGRSLRLSCAASGETESSYTMHWVRQAPGKGLEWVTFISYDGSNKHY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADSVKGRFTVSRDŃSKNTLYLOMNSLRAEDTAIYYCARTGWLGPFDYWGOGTLVTVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EVQLVESGGGLVQPGGSLRLSCAASGFTFSSYSMNWVRQAPGKGLEWVSYISSTIITIYY
      ADSVKGRFTI SKDNSRDTLYLOMNSLKAEDTAVYYCAKDPRGYSASGNYTREDYWGOGTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADSVKGRFTISRDNAKNSLYLOMNSLRAEDTAVYYCARGDSSEAFDIWGQGTMVTVS 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 118 AA;
                                                                                                              75.1%;
ilarity 73.6%;
Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118
                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel. 19, Created)
(TrEMBLrel. 19, Last sequence update)
(TrEMBLrel. 20, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                    A.
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                                                                                                                                                                   65039 MW;
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                                                        75.4%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                            Score 475.5;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 477; DB 4;
Pred. No. 1.9e-42;
2; Mismatches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    87:184-192 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P.L.,
                                                                                                                                                                4FCA3AD8ECE263D9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D0633949F2AC149D
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                                                                                                                                                                                                                                                                                                                                                                                                                                     597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vertebrata; |
i; Hominidae;
                                                                                                                            .1e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                    ⋧
                                                                                                                                      DB 4;
                                                                                                           12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              carditis
                                                                                                                                                                                                                                             databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CRC64;
                                                                                                             Indels
                                                                                                                                      Length 597;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          region
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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 92; Conserv
                                                                                                                                                                                                                                                                          091205;
01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 51.9 kDa protein.
                                                                                                                                  Strausberg R.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ
EMBL; BC010327; AAH10327.1; -
MGD; MGI:2144967; AU044919.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2002
01-JUN-2002
01-JUN-2002
                                         Hypothetical SEQUENCE 4
                                                                                            InterPro; IPR000345; CytC he InterPro; IPR003006; Ig_MHC Pfam; PF00047; ig; 3.
                                                               PROSITE; PS00190; CYTOCHROME C; UNKNOWN 1.
                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                     291205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hypothetical protein SEQUENCE 471 AA;
                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Strausberg R.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; BC024289; AAH24289.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Primates,
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hypothetical 51.8 kDa protein.
Homo sapiens (Human).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8TC77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ISSUE=SPLEEN;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ADSVKGRETVSRDNSKNTLYLQMNSLRAEDTAIYYCAR-----TGWLGPEDYWGQGTLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                                                                                                                                                                                                                                                                                                                                                                                                                   TVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                              TVSS 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADSVKGRFTISRDNAKNSLYLOMNSLRAEDTAVYYCARDLRQLTSYWY--FDLWGRGTLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EVQLVESGGGLVKPGGSLRLSCAASGFTFSSYSMNWVRQAPGKGLEWVSSMSSSSSYIYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VIVSS
                                         11 protein
473 AA;
                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TrEMBLrel. 21,
(TrEMBLrel. 21,
(TrEMBLrel. 21,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 144
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                                                                                                                                                                                                                           Chordata;
Rodentia;
                                         51946 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51791 MW;
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Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 471; DB
Pred. No. 4.7e
L4; Mismatches
 Score 464; DB 11;
Pred. No. 2.6e-40;
                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                        CF625F008932AF12 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                388F7F4CF588660E
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Best Local
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
Kikuchi M., Takeda C., Tsujimoto Y., Ar
Kikuchi M., Tsujimoto Y., Ar
Kiku
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Q9UL72;
01-MAY-2000
01-MAY-2000
                                                                                                                                                                                                                                                                                           Q9HCC1;
Q9HCC1;
01-MAR-2001
01-MAR-2001
01-DEC-2001
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NON_TER
SEQUENCE
                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                    Single chain Fv (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Myosin-reactive autoantibodies in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pro; IPR003006; Ig_MHC.
Pro; IPR003596; Ig_v.
Pr00047; Ig; 1.
'SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGP--FDYWGQGTLVTVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAFYYCARDRF-GEFLFDYWGOGTLVTVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EVQLVESGGGLVQPGGSLRLSCAASGFTVSSNYMNWVRQAPGKGLESVS-VTYSGGSSYY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADTVKGRFTISRDNAKNTLFLOMTSLRSEDTAMYYCARELWLRRIDYWGQGTTITVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EVOLVESGGGLVKPGGSRKLSCAASGFTFSDYGMHWVRQAPEKGLEWVAYINSGSTTIYY
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118 AA;
                                                                                                                                                                                                                                                                                           (TrEMBLrel. 16, (TrEMBLrel. 16, (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TYEMBLrel. 13, Created)
(TYEMBLrel. 13, Last sequence update)
(TYEMBLrel. 19, Last annotation update)
tive immunoglobulin heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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; AAD56278.1;
                                                                                                                                                                                                Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73.1%;
78.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12872 MW;
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                                                                                                                                                                                                                                                                                      Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 463; DB Pred. No. 5.6e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87:184-192(1998)
                                                                                                                                                                                           Craniata; Ve
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; l
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
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                                          Y., Asada S., Nagata K.;
for native lysozyme :Isolaion
rary and characterization.";
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                                                                                                                                                                                                                                                                                                                                                                                           112
                                                                                                                                                                                                                    Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4;
.6e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                Hominidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   carditis
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NON TER
SEQUENCE
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Isogai T., Otsuki T., Suzuki Y.,
Isogai T., Otsuki T., Suzuki Y.,
Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H.,
Wagatsuma M., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara
Takahashi M., Chiba Y., Ishida S., Murakawa K., Ono Y., Takiguchi
Watanabe S., Kimura K., Murakawa K., Ishii S., Kawai Y., Saito K.,
Yamamoto J., Wakamatsu A., Nakamura Y., Nagahari K., Masuho Y.,
Ninomiya K., Iwayanagi T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DUN-2002 (TrEMBLrel. 21, Last annotation update)
CDNA FLJ14473 fis, clone MAMMA1001080, highly similar sapiens SNC73, protein (SNC73) mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "NEDO human cDNA sequencing project.";
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AK027379; BAB55072.1;
InterPro; IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
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SMART; SM00409; IG; 1.
SMART; SM00406; IGv; 1.
SMART; SM00410; IG like;
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InterPro;
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                    140
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TE; PS00290; IG MHC; UNKNOWN 1.
NCE 494 AA; 53088 MW; 9AID7AEB5AEE4C0E CRC64;
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P01772; 2F
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ilarity 75.4%;
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70.5%;
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; Pred. No. 5.5e-38;
13; Mismatches 19
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Pred. No. 1.8e
13; Mismatches
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DE Pterin minicking anti-idiotope heavy Chain variable region
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Search completed: June 3, 2003, 08:20:47 Job time: 58.7986 secs

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No.
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                             Score
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seq length: 2000000000
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Gapop 10.0 , Gapext 0.5
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633
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Copyright (c) 1993 - 2003 Compugen Ltd.
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AAB67509
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Human anti- Anti-human Human DP-46	Human	Heavy	Anti-	Human	Human	Human	Human	Anti-	Anti-	Human	hCAT1	HCAT1	Anti-	Anti-	Anti-	Human	Human	Human	Anti-IL8 monoclona	Human	Human BLyS binding	3	Heavy chain variab	The	The	The	Human BLyS	Anti-IL8	Human	Human	Anti-IL8

ALIGNMENTS

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RESULT 1
AAB6759
ID 7509
ID 75
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/note= "CDR3"
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24-AUG-2000; 2000WO-US23356

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RESULT 2
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Best Local
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         Region
                                                                                                                                                                                                                                                             Complementarity determining region; CDR; immune response; antibody; cytotoxic Tlymphocyte associated antigen-4; CTLA-4; B7 ligand; cancer; autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple scierosis; insulin-dependent diabetes mellitus; inflammation;
                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB67514 standard; peptide;
                                                                                         Region
                                                                                                                                                                                                                                             transplant rejection; graft versus host disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Heavy chain variable region of anti-CTLA-4 antibody 10D1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              prolonging immune response response in patient -
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ilarity 100.0%;
Conservative (
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                                                                                         Location/Qualifiers 31..35
/note= "CDR2"
                                                            /note= "CDR1"
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Pred. No. 6.3e-48;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 118;
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents the heavy chain variable region of human antibody 1001. This antibody specifically binds to human cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune
                                                                                                       Sequence
                                                                                                                                                                                                                                                    gravis and lupus erythematosus, multiple sclerosis, insulin-dependent diabetes mellitus, transplant rejection, and inflammation, graft vers
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                                                                                                                                                                                                               disease.
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                                                                                                       118 AA;
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/note= "CDR3"
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                                                                                                                                                                                                                                              inflammation, graft
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RESULT 3
AAB67508
                                                                                                                                                                                Matches
                                                                                                                                                                                                Local
                                                                                                                                                                          al Similarity 100.0%;
all Similarity 100.0%;
118; Conservative 0
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                                                                     ADSVXGRETVSRDNSKNTLYLQMNSLRABDTAIYYCARTGWLGPEDYWGQGTLVTVSS 118
                                                                                                                                          QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTF1SYDGSNKHY 60
                                                       ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
                                                                                                                    QVQLVESGGGVVQPGRSLRLSCAASGFTFSS
                                                                                                                                                                               0
                                                                                                                                                                                           Score 633; DB 22;
Pred. No. 6.3e-48;
                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                        Length 118;
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29-MAY-2001

(first entry)

AAB67508 standard; peptide;

118

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Light chain variable region

of anti-CTLA-4 antibody 10D1.

Complementarity determining region; CDR; immune response; antibody; cytotoxic Tlymphocyte associated antigen-4, CTLA-4; B7 ligand; cancer; autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent diabetes mellitus; inflammation;

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RESULT 4
AAB67513
ID AAB6
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                                                                                                                                                                                                                                            Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                         response to an antigen in a patient, where the antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin-dependent diabetes mellitus, transplant rejection, and inflammation, graft versus
            AAB67513;
                                         AAB67513 standard;
                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 25; Fig 7; 127pp; English.
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                                                                                                                                                                                                                                                                                                                                      disease.
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                                                                                                                                    ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
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                                                                                                                                                                                                                                                                                                        118 AA;
                                                                                                                                                                                                                                           Conservative
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                                        peptide; 118 AA
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                                                                                                                                                                                                                                      Score 623; DB 22;
Pred. No. 4.7e-47;
3; Mismatches 0;
                                                                                                                                                                                                                                                                    Length 118;
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61

ADSVKGRETVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGNNKYY QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTWHWVRQAPGKGLEWVTFISYDGSNKHY 60 Query Match
Best Local Similarity
Matches 115; Conser

Conservative

ω ••

Score 623; DB 22; Pred. No. 4.7e-47; 3; Mismatches 0

Length 118; Indels

<u>.</u>

Gaps

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98.4%;

Sequence

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The present sequence represents the heavy chain variable region of C human antibody 10DL. This antibody specifically binds to human CY typotoxic T lymphotyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune creaming of human CTLA-4 to human B ligands. The antibodies lock binding of human CTLA-4 to human B ligands. The antibodies are calso useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polycional cantibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treatment of the polyclonal preparations are useful for treatment. The polyvalent or polyclonal preparations are useful for treatment of diseases with inflammatory or allergic treatment of the polyvalent or polyclonal preparations are useful for treatment of the polyclonal preparations are useful for the polyclonal preparations are useful for the polyclon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin-dependent diabetes mellitus, transplant rejection, and inflammation, graft versuches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel human sequence antibody that binds to human cytotoxic lymphocyte associated antigen-4, useful for inducing, augmentation for suppressing immune response to antigen or for suppressing immune.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 25; Fig 8; 127pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complementarity determining region; CDR; immune response; antibo cytotoxic T lymphocyte associated antigen-4; CTLA-4; B7 ligand; autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent diabetes mellitus; inflamm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                response in patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-202933/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-AUG-2000; 2000WO-US23356
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Korman AJ, Halk EL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200114424-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MEDA-) MEDAREX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      transplant rejection; graft versus host disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Heavy chain variable region of anti-CTLA-4 antibody 10D1
                                                    disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0150452.
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50..66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note= "CDR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "CDR1"
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ing immune
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RESULT 5
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ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS

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               Matches
                   Query Match
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109; Conser
                                    invention
QVQLVESGGGVVQPGRSLRLSCAASGPTPSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
    QVQLVESGGGVVQPGRSLRLSCAASGFTFSSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                             247
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                  89.6%;
              Score 567; DB 23;
Pred. No. 7.6e-42;
4; Mismatches 5
                     23;
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                    Length
              Indels
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ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118 QVQLVESGGGVVEPGRSLRLSCTASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKHY QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY

20

Best Query Match Best Local 9 Matches

Similarity

89.4%;

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DB 21; ..8e-41; 9,

Length 463; Indels

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79 60 0 English

cytotoxic and light

T-lymphocyte antigen chain sequences, useful

Conservative

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acquired
the antib
                                                                      cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be administered to treat disease associated with aberrant BLyS expression and activity such as cancer, immune, and autoimmune disorders and and activity such as cancer, immune, and autoimmune disorders and
                                                                                                                                                                                                                        B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNF) super family and induces B cell proliferation and differentiation. The antibodies of the invention have
                                                              diseases,
                                                                                                                                                                                                                                                                                                                             Claim 1; Page 1504-1505;
                                                                                                                                                                                                                                                                                                                                                            Antibodies against B Lymphocyte Stimulating the diagnosis and treatment of cancers and
                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-114799/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200202641-A1
                                                                                                                                                                                                                                                                                      This invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 common variable immunodeficiency; acquired immunodeficiency syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunosuppressive; immunostimulant; immunomodulatory; antirheumatic; antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodefici systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLys; B lymphocyte stimulator; TNF superfamily; human; cytoscallo; or all broliferation; B cell differentiation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human BLyS binding scFv SEQ
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                                      iseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (e.g. common variable immunodeficiency (CVID) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABP44913
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CAMBRIDGE ANTIBOI
     immunodeficiency syndrome bodies and fragments of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Barash
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2000US-240816P.
2001US-276248P.
2001US-277379P.
2001US-293499P.
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                                                                                                                                                                                                                                                                                  describes novel antibodies that immunospecifically bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SC,
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ANTIBODY TECHNOLOGY.
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                         (AIDS)).
     antibodies
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immune disorders
                   ABP43990-ABP47228 represent
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hilbert
     described
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunodeficiency;
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     the method
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AAY93707
ID AAY9
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                         The present sequence represents a heavy chain of an antibody of the invention. The antibody is directed cytotoxic T-lymphocyte antigen (CTLA) 4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a PRI-PR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune diabetes and graft rejection) and proliferative disorders (e.g. cancer). CTLA-4 stimulatory agents may be used to up-regulate immune system to up-regulate immunodeficient disorders.
Sequence
                                                                                                                                                                                                                                                                                              Novel antibodies capable of binding (CTLA)-4 containing specified heavy for treating, e.g. immune disorders
                                                                                                                                                                                                                                                             Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hyperimmunity
proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY93707;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    JR;
                                                                                                                                                                                                                                                             Fig 1D; 157pp;
463
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(CAMB-)

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N-PSDB; AAA46870
             WPI; 2000-442647/38
                                                                                                                                                                                                                                                                                                                                  Cytotoxic T-lymphocyte antigen-4;
                                                                                                                                                                                                                                                                                                                                                                 The heavy chain of immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            115 TVSS 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                           ABGENIX INC
                                                                                                          PFIZER INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard; Protein; 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TVSS 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARPSYDILTGYLYYFDYWGQGTLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCAR---
                                                           Neveu MJ,
                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                    disorder;
                                                                                                                                         98US-0113647
                                                                                                                                                                       99WO-US30895
                                                           Mueller
                                                                                                                                                                                                                                                                                                 autoimmune disease; diabetes; graft rejection; cancer; immunodeficient disorder.
                                                           띮,
                                                                                                                                                                                                                                                                                                                                  CTLA-4; antibody;
                                                                                                                                                                                                                                                                                                                                                                clone 6.1.1.
                                                           Hanke JH,
                                                           Gilman
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                                                                                                                                                                                                                                                                                                                                   immune
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AAY93732

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                                                                                                                                                                                                                                         Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                        The present sequence represents a heavy chain of an antibody of the invention. The antibody is directed cytocoxic T-lymphocyte antigen (CTLA)-4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a RR-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune disease, diabetes and graft rejection) and proliferative disorders (e.g. cancer). CTLA-4 stimulatory agents may be used to up-regulate immune system to up-regulate immunodeficient disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel antibodies capable of binding cytotoxic T-lymphocyte antigen (CTLA)-4 containing specified heavy and light chain sequences, useful for treating, e.g. immune disorders -
                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; Fig 22m; 157pp; English.
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N-PSDB; AAA46896.
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(ABGE-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune system; hyperimmunity disorder; autoimmune disease; diabetes; graft reject proliferative disorder; cancer; immunodeficient disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The heavy
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                                                                                                                                                                                                                                         106;
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                                                                                                                                                                                                                                                              Similarity
                                                                                                             QVQLVESGGGVVEPGRSLRLSCTASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKHY 79
                                                                                                                                                       QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTF1SYDGSNKHY 60
                                                  ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
ADSAKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARAGLLGYFDYWGQGTLVTVSS 137
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                                                                                                                                                                                                                                                                                                                                                    463
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                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
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                                                                                                                                                                                                                                                           89.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mueller EE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "signal peptide"
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                                                                                                                                                                                                                           Score 566; DB 21;
Pred. No. 1.8e-41;
3; Mismatches 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ζ
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                                                                                                                                                                                                                                                                                      Length 463;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Davis
                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                           Gaps
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Giardia, Malaria, Leishmania, Staphylococcus aureus, Beudomonas aeruginosa. Human antibodies can be used as detection reagents for performing clinical diagnostic tests and for performing other in vitro detection assays, including for research purposes. (I) can be used in qualitative assays designed to indicate the presence of one or more carget antigens above minimally detectable amounts of antigen in the sample that usually correspond to the sensitivity limitations of the assays for each target antigen. Also, (I) is used to determine the amount of target antigen in a sample in a semi-quantitative or relative sense. Quantification of one or more target antigens in a sample can also be carried out using (I). AAH41612 to AAH41686, and AAB99361 to AAB99399, represent sequences used in the exemplification of the present
                                                                                                                                                                                                                                                                             antibody (HAMA) (preferably human anti-mouse idiotype antibodies and/or heterophilic antibodies). The method can also be used for detecting any type of target antigen including bacterial, fungal and viral pathogens that cause human diseases e.g., hepatitis (A,B and C), influenza, Herpel Giardia, Malazia, Leishmania, Staphylococcus aureus, Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a method for detecting an analyte in a human sample containing human antibodies that specifically bind to antibodies from a nonhuman species. The method involves contacting the sample with a human antibody (I) which specifically binds to antibodies from a nonhuman species and detecting the binding between (I) and the analyte to indicate presence of the analyte. The method is used for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detecting analyte in human sample containing human antibodies binding to nonhuman-antibodies, involves contacting sample with human antibody which binds to antibodies from nonhuman species and detecting binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 22; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human anti-mouse antibody; HAMA antibody;
target antigen; bacterial; fungal; viral;
hepatitis A; hepatitis B; hepatitis C; infi
Leishmania; Staphylococcus aureus; Pseudom
                                                                                                                                                                                                                                                                                                                                                                                  detecting an analyte in a human sample containing human anti-mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-374798/39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human interleukin 8 antibody protein sequence M1_5H
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GENP-) GENPHARM INT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BIOS-) BIOSITE DIAGNOSTICS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93; 135pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunoglobulin; heterophilic antibody;
antibody; interleukin 8; IL-8; Herpes;
al; viral; pathogen; human disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lomberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pseudomonas
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                                                          of the present
                                                                                                                                                                                                                                                                                                    Herpes
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Query Match
Best Local Similarity
Matches 106; Conserv

Conservative

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88.4%;

Score 559.5; DB 2 Pred. No. 3.1e-41; Mismatches

DB 22; 6

225;

Indels Length

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Gape

Sequence

225 AA;

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ARBSULT 9
AAB9380
AC AAB9
AC AAB9
AC AAB9
AX AAB9
AX AAB9
AX Huma
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AX Huma
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BX HOM
DO OS SYNT
                       detecting an analyte in a human sample containing human anti-mouse antibody (HAMA) (preferably human anti-mouse idiotype antibodies and/or cheterophilic antibodies). The method can also be used for detecting any type of target antigen including bacterial, fungal and viral pathogens contained that cause human diseases e.g., hepatitis (A,B and C), influenza, Herpes, contained the human antibodies can be used as detection reagents for caruginosa. Human antibodies can be used as detection reagents for contained the human antibodies can be used as detection reagents for contained the human antibodies can be used as detection reagents for contained the presence of one or more contained that used in the presence of one or more carget antigens above minimally detectable amounts of antigen in the sample that usually correspond to the sensitivity limitations of the cassays for each target antigen to a sample in a semi-quantitative or relative genee. Quantification of one or more target antigens in a sample can also be carried out using (I). ANH41612 to ANH41686, and ANB9361 to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a method for detecting an analyte in a human sample containing human antibodies that specifically bind to antibodies from a nonhuman species. The method involves contacting the sample with a human antibody (I) which specifically binds to antibodies from a nonhuman species and detecting the binding between (I) and the analyte to indicate presence of the analyte. The method is used for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detecting analyte in human sample containing human antibodies binding to nonhuman-antibodies, involves contacting sample with human antibody which binds to antibodies from nonhuman species and detecting binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Buechler J,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human anti-mouse antibody; HAMA antibody; interleukin 8; IL-8; Hetarget antigen; bacterial; fungal; viral; pathogen; human disease hepatitis A; hepatitis B; hepatitis C; influenza; Giardia; Malari;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human interleukin 8 antibody protein sequence M2_11H.
AAB99399, represent sequences used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200140306-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human antibody; detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BIOS-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English
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exemplification of the present
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Query Match

88.4%;

Score 559.5;

В

22;

Length

Sequence

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ARBSULT 10
AAB75002
ID AAB75
XX AAB75
XX 19-JU
XX 19-JU
XX ANT1-
XX Human
XX Homo
OS Synth
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                      The present invention describes a method (M1) for producing a human antibody phage display library [1], comprising: (1) providing a nonhuman transgenic animal (II) whose genome comprises human immunoglobulin genes; (2) isolating nucleic acids encoding human antibody chains (III) from the package and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display be used to screen nucleic acids encoding antibody chains obtained from immunised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies display library using this method means there is no need to immunise humans with antigens, and the difficulties faced with immortalising B cells are avoided. AAH29988 to AAH30066 and AAB74994 to AAB75056 represent sequences used in the exemplification of the present invention.
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Best Local :
                                                                                                                                                                                                                                                                                                                         Producing a human antibody phage display library comprises providing a transgenic animal whose genome comprises human immunoglobulin genes and isolating nucleic acids encoding antibody chains from lymphatic cells.
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01-DEC-1999;
                                                                                                                                                                                                                                                                                          Example 22; Page 97; 161pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-335567/35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-OCT-2000; 2000WO-US27237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human antibody phage display library; immunisation; transgenic animal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anti-IL8 monoclonal antibody protein fragment M1_5H
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                                                                                                                                                                                                                                                                                                                                                                                                                            Valkirs G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                            Gray J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  225
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Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             OF MEDAREX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .1e-41
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                                                                                                                                                                                                                                         a nonhuman
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The present invention describes a method (M1) for producing a human cantibody phage display library (I), comprising: (1) providing a nonhuman transgenic animal (II) whose genome comprises human immunoglobulin genes; (2) isolating nucleic acids encoding human antibody chains (III) from Clymphatic cells; and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display (2) library, e.g., a Fab phage display library. The display method may be cused to screen nucleic acids encoding antibody chains obtained from communised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies (2) display library using this method means there is no need to immunise Cluminise with antigens, and the difficulties faced with immortalising B (2) cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75556 (2) or represent sequences used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
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  Query Match
Best Local Similarity
Matches 106; Conser
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                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Producing a human antibody phage display library comprises providing a transgenic animal whose genome comprises human immunoglobulin genes and isolating nucleic acids encoding antibody chains from lymphatic cells -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-335567/35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-OCT-1999;
01-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BIOS-) BIOSITE DIAGNOSTICS INC. (GENP-) GENPHARM INT SUBSIDIARY OF MEDAREX INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-OCT-2000; 2000WO-US27237
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human antibody phage
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22; Page 98-99; 161pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
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99US-0453234.
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hage dispļay library;
                          89.4%;
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Score 559.5; DB 22
Pred. No. 3.1e-41;
5; Mismatches 6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interleukin 8; IL8; immunogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lonberg N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunisation; transgenic animal
                                             22;
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QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY 60

Query Match Best Local Similarity

88,3%;

Score 559; Pred. No. 3.

DB 23; .8e-41;

Length

Sequence

252

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RESULT 12
ABP45508
This invention describes novel antibodies that immunospecifically bind to B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNP) super family and induces B cell proliferation and differentiation. The antibodies of the invention have cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be associated with aberrant expression of BLyS. They may also be administered to treat diseases associated with aberrant BLyS expression and activity such as cancer, immune, and autoimmune disorders and dateivity such as cancer, immune, and autoimmune disorders and confedesses, e.g. systemic lupus erythematous, rheumatoid arthitis, acquired immunodeficiency (e.g. common variable immunodeficiency (CVID) and acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent the antibodies and fragments of the antibodies described in the method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antibodies against B Lymphocyte Stimulating polypeptides, useful the diagnosis and treatment of cancers and immune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUN-2000; 2000US-212210P
17-OCT-2000; 2000US-240816P,
16-MAR-2001; 2001US-276248P,
21-MAR-2001; 2001US-277379P,
25-MAY-2001; 2001US-293499P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human BLyS binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP45508;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC
(CAMB-) CAMBRIDGE ANTIBODY TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUN-2001; 2001WO-US19110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 2215-2216; 3148pp; English.
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; 2001US-276248P.
; 2001US-277379P.
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differentiation;
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               detecting an analyte in a human sample containing human anti-mouse antibody (HAMA) (preferably human anti-mouse idiotype antibodies and/or heterophilic antibodies). The method can also be used for detecting any type of target antigen including bacterial, fungal and viral pathogens that cause human diseases e.g., hepatitis (A, B and C), influenza, Herpes, Giardia, Malaria, Leishmania, Staphylococcus aureus, pseudomonas aeruginosa. Human antibodies can be used as detection reagents for performing clinical diagnostic tests and for performing char in vitro detection assays, including for research purposes. (I) can be used in qualitative assays designed to indicate the presence of one or more
                                                                                                                                                                                                                                     The present invention describes a method for detecting an analyte in a human sample containing human antibodies that specifically bind to antibodies from a nonhuman species. The method involves contacting the
                                                                                                                                                                                                                                                                                                                                                        Detecting analyte in human sample containing human antibodies binding to nonhuman-antibodies, involves contacting sample with human antibody which binds to antibodies from nonhuman species and detecting binding
                                                                                                                                                                                 analyte to indicate presence of the analyte. The method is used for
                                                                                                                                                                                                     sample with a human antibody (I) which specifically binds to antibodies from a nonhuman species and detecting the binding between (I) and the
                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-374798/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Buechler J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-DEC-2000; 2000WO-US33042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human anti-mouse antibody; HAMA antibody; interleukin 8; IL-8; Herp
target antigen; bacterial; fungal; viral; pathogen; human disease;
hepatitis A; hepatitis B; hepatitis C; influenza; Giardia; Malaria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human interleukin 8 antibody protein sequence M2_34H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB99388;
                                                                                                                                                                                                                                                                                                              Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200140306-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB99388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BIOS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Leishmania; Staphylococcus aureus; Pseudomonas aeruginosa; diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GENP-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENPHARM INT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BIOSITE DIAGNOSTICS
                                                                                                                                                                                                                                                                                                              22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCAR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TVSS 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAKRQYDILTGYYGGFDYWGQGTMV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QVQLQESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTWHWVRQAPGKGLEWVTFISYDGSNKHY
                                                                                                                                                                                                                                                                          invention describes a method
                                                                                                                                                                                                                                                                                                            Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Valkire
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0456090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            detection; Fab;
                                                                                                                                                                                                                                                                                                            95;
                                                                                                                                                                                                                                                                                                        135pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INC.
                                                                                                                                                                                                                                                                                                        English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunoglobulin; heterophilic antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lonberg N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
of antigen
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                                                                                                                                                                                  Query Match
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Matches
                                                                                                                                                                                                                                                                                         sample that usually correspond to the sensitivity limitations of the assays for each target antigen. Also, (I) is used to determine the amount of target antigen in a sample in a semi-quantitative or relative sense. Quantification of one or more target antigens in a sample can also be carried out using (I). AAH41612 to AAH41686, and AAB99361 to
                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                 invention
14
                                                                                                                                                                        105;
                                             51
                                                                         61
                                                                                                                                        --
                                                                                                                                                                                     Similarity
                                                                                                                           QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                                                             ADSVKGRETVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPEDYWGQGTLVTVSS 118
                                                                                                        QVQLVESGGGVVQPGRSLRLSCAASGFTFSYYGIHWVRQVPGKGLEWVVLISYDGSNKYY
                                             ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR-DWIGYFDYWGOGTLVTVSS 117
                                                                                                                                                                                                                                  225
                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                               sequences used in the exemplification of the present
                                                                                                                                                                                  88.2%;
                                                                                                                                                                     5
                                                                                                                                                                                  Score 558.5;
Pred. No. 3.8
                                                                                                                                                                       Mismatches
                                                                                                                                                                                     .8e-41
                                                                                                                                                                                                     DB
                                                                                                                                                                                                  22;
                                                                                                                                                                     Indels
                                                                                                                                                                                                 Length
                                                                                                                                                                                                    225;
                                                                                                                                                                    <u>ب</u>
                                                                                                                                                                     Gaps
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WO200125492-A1
                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                            AAB75021;
                                                                                                                                        02-OCT-1999;
01-DEC-1999;
                                                                                                                                                         02-OCT-2000;
                                                                                                                                                                   12-APR-2001
                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                            Human; antibody; immunoglobulin; interleukin 8; IL8; immunogen;
                                                                                                                                                                                                                                  19-JUL-2001
                                                                                                                                                                                                                                                       AAB75021
                                                                                                                                                                                                       human antibody
                                                                                                                                                                                                                       Anti-IL8 monoclonal antibody protein fragment M2_34H
                                                                                                                                                                                                                                                       standard;
                                                                                                                                                         2000WO-US27237
                                                                                                                                                                                                                                  (first
                                                                                                                                        99US-0157415.
99US-0453234.
                                                                                                                                                                                                       phage display library;
                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                       immunisation; transgenic animal
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Producing a human antibody phage display library comprises provitransgenic animal whose genome comprises human immunoglobulin gaisolating nucleic acids encoding antibody chains from lymphatic providing enes and

WPI; 2001-335567/35

Buechler J,

Valkirs G,

Gray J,

Lonberg N;

BIOSITE DIAGNOSTICS INC. GENPHARM INT SUBSIDIARY

OF MEDAREX INC

Example 22; Page 98-99; 161pp; English.

The present invention describes a method (M1) for producing a human antibody phage display library (I), comprising: (1) providing a nonhuma transgenic animal (II) whose genome comprises human immunoglobulin gene (2) isolating nucleic acids encoding human antibody chains (III) from lymphatic cells; and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display be used to screen nucleic acid encoding antibody chains obtained from immunised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies may be prepared. Production of a human monoclonal antibodies may be prepared. display library using means there is no obulin genes; nonhuman

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ABP44972
ID ABP44
XX ABP44
XX ABP44
XX ABP44
XX ABLys,
XX BLys,
XX Ellys,
XX Homoo
XX W0200
XX W0200
XX Homo
XX W0200
XX Ellymo
XX Ellym
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Best Local S
                    This invention describes novel antibodies that immunospecifically bind to B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNP) super family and induces B cell proliferation and differentiation. The antibodies of the invention have cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUN-2000;
17-OCT-2000;
16-MAR-2001;
21-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic; tumour necrosis factor; B cell proliferation; B cell differentiation; immunosuppressive; immunostimulant; immunomodulatory; antirheumatic; antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficier systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS; common variable immunodeficiency; acquired immunodeficiency syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                  Antibodies against B Lymphocyte Stimulating polypeptides, useful the diagnosis and treatment of cancers and immune disorders -
  associated with aberrant expre-
administered to treat diseases
                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 1574-1575; 3148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ruben
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABP44972 standard; Protein; 254 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-114799/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JUN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human BLyS binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-AUG-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CAMB-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HUMA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        105;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HUMAN GENOME SCI INC.
CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Barash
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; 2000US-212210P.
; 2000US-240816P.
; 2001US-276248P.
; 2001US-277379P.
; 2001US-293499P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Choi GH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ID 983.
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Pred. No. 3.8e-41;
associated with aberrant BLyS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vaughan T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hilbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              225;
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expression
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Best Local
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                                                                                                                                                                                                                                                                                  and activity such as cancer, immune, and autoimmune disorders and diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (e.g. common variable immunodeficiency (CVID) and acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent the antibodies and fragments of the antibodies described in the method
                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                       of the invention.
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                                                                                                                                                                                            Similarity
                             GTLVTVSS 118
GIMVIVSS
                                                                          ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCAR-----TGWLGP--FDYWGQ 110
                                                                                                                                       QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTF1SYDGSNKHY
                                                           ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAREEGFYDILTGYYGPGYFDYWGK 120
                                                                                                                 QVQLQESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
                                                                                                                                                                                                                                         254 AA;
                                                                                                                                                                                Conservative
                                                                                                                                                                                            88.0%;
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                                                                                                                                                                                            Score 557; DB 23; Pred. No. 5.8e-41;
                                                                                                                                                                              Mismatches
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Search completed: June Job time: 54.1604 secs 54.1604 secs ω, 2003, 08:14:47

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Result
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Perfect score:
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                                                                                                                                                                       558 F
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2: /cgn2_6/ptodata/1/pubpaa
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                                                    US-09-880-748-983
US-10-153-382-3
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US-09-880-748-1201
US-09-453-234-106
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13, Appl
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equence 13:	e 955, Ap	equence 17	equence 10	ce 2	equence 981	æ	equence 88:	equence 15	equence 15	equence 14	equence 13:	equence 19	equence 10	equence 68	equence 2,	equence 17:	equence 97	equence 24	equence 9,	equence 51:	equence 95	equence 12	equence 20	equence 2,	equence 9,

; ORGANISM: Homo sapiens US-09-880-748-924 CURRENT APPLICATION NUMBER: US/09/880,748 CURRENT FILING DATE: 2001-06-15 PRIOR APPLICATION NUMBER: 60/212,210 PRIOR FILING DATE: 2000-06-15 PRIOR APPLICATION NUMBER: 60/240,816 PRIOR APPLICATION NUMBER: 60/276,248 PRIOR FILING DATE: 2000-10-17 PRIOR APPLICATION NUMBER: 60/276,248 PRIOR FILING DATE: 2011-03-16 PRIOR APPLICATION NUMBER: 60/277,379 PRIOR APPLICATION NUMBER: 60/277,379 PRIOR APPLICATION NUMBER: 60/277,379 PRIOR FILING DATE: 2001-03-21 SOFTWARE: Pa SEQ ID NO 924 GENERAL INFORMATION: Publication No. -09-880-748-924 NUMBER OF SEQ ID NOS: 3239 APPLICANT: Ruben TYPE: PRT IIILE OF INVENTION: Antibodies that Immunospecifically Bind BLyS ENGTH: APPLICATION NUMBER: 60/293,499 LING DATE: PatentIn Ver. 2.0 Application US/09880748 o. US20030059937A1 et al. 2001-05-25

109;

Conservative

89.6%;

Score 567; DB 9; Pred. No. 4.7e-37 4; Mismatches

DB 9; Length 247;

Indels

6

Gaps

60

1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY

QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

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Application US/10153382

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Best Local :
                                                                                                                                                                                                                                                                                                                      SEQ ID NO 60
LENGTH: 225
                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
OTHER INFORMATION: M1-5H
-09-453-234-60
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Best Local Similarity
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ORGANISM: Homo sapiens
-10-153-382-13
                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 112
SOFTWARE: PatentIn Ver. 2
                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 60/157,415
PRIOR FILING DATE: 1999-10-02
                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/453,234
CURRENT FILING DATE: 1999-12-01
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NUMBER OF SEQ ID NOS: 39
SOFTWARB: PatentIn Ver. 2.1
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CURRENT FILING DATE: 2002-05-22
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PPLICANT: Valkirs, Gunars
PPLICANT: Gray, Jeff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/293042 PRIOR FILING DATE: 2001-05-23
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ITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
LE REFERENCE: PC23019A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E OF INVENTION: Human Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION:
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Similarity 89.8%;
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ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARDG-IGYFDYWGQGTLVTVSS 117
                                    ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
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Biosite Diagnostics, Inc.
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Pred. No. 1e-36;
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Pred. No. 1.6e-36;
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Best Local Similarity Matches 106; Conserv

Conservative

88.3%;

Score 559; DB 9 Pred. No. 2e-36; 6; Mismatches

DB_9; Length 252;

6

Gaps

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; ORGANISM: Homo sapiens US-09-880-748-1519
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; OTHER INFORMATION: M2-11H
US-09-453-234-92
                                                    SOFTWARE: PatentIn Ver.
SEQ ID NO 1519
LENGTH: 252
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1519, Application US/09880748 Publication No. US20030059937A1 GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                   NUMBER OF SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-880-748-1519
                                                                                                                                         PRIOR FILING DATE:
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CURRENT FILING DATE: 2001-06-15
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                                        TYPE: PRT
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APPLICANT: Valkirs, Gunars
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Human Antibodies FILE REFERENCE: 020015-000110US
                                                                                                                                                                                                                                                                                                                                                                                               PPLICANT: Ruben et al.
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                                                                                                                                                                                                                                                          IOR APPLICATION NUMBER: 60/240,816 OR FILING DATE: 2000-10-17
                                                                                                                                                                                                                                                                                                                                                                                   LE REFERENCE: PF523
                                                                                                                                                                                                                                       OR APPLICATION NUMBER: 60/276,248
                                                                                                                                                         APPLICATION NUMBER: 60/293,499
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Biosite Diagnostics, Inc.
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                                                  PRIOR APPLICATION NUMBER: 60/212,210
PRIOR PILLING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILLING DATE: 2000-10-17
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
PRIOR FILING DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                                         Sequence 983, Applic Publication No. US20 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
OTHER INFORMATION: M2-34H-
-09-453-234-108
                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
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PRIOR FILING DATE: 1999-10-02
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APPLICANT: Valkirs, Gunars
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ublication No.
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PLICANT: Biosite Diagnostics, Inc.
PLICANT: GenPharm International
TLE OF INVENTION: Human Antibodies
LE REFERENCE: 020015-000110US
                                                                                                                                                                                                                                                                               TLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
                                                                                                                                                                                                                                                                  E REFERENCE: PF523
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                   APPLICATION NUMBER: 60/293,499 FILING DATE: 2001-05-25
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SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gray, Jeff
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o. US20030091995A1
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Pred. No. 2e-36;
5; Mismatches 7;
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US-09-880-748-983
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SEQ ID NO 983
LENGTH: 254
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                           APPLICANT: PFIZER PRODUCTS INC.
TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39
NUMBER OF SEQ ID NOS: 39
NUMBER OF SEQ ID NOS: 3.1
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CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
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PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39
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TYPE: PRT
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ITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
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Pred. No. 2.9e-36;
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Pred. No. 5e-36;
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US-09-880-748-1201
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PRIOR APPLICATION NUMBER: 60/212,210
PRIOR PILING DATE: 2000-06-15
PRIOR PILING DATE: 2000-06-15
PRIOR PILING DATE: 2000-10-17
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR PILING DATE: 2001-03-16
PRIOR PILING DATE: 2001-03-16
PRIOR PILING DATE: 2001-03-21
PRIOR PILING DATE: 2001-03-21
PRIOR PILING DATE: 2001-03-21
PRIOR PILING DATE: 2001-03-25
PRIOR PILING DATE: 2001-03-25
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LENGTH: 252
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                                                                                                                                    GENERAL INFORMATION:
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Best Local Similarity
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                                                                   APPLICANT: Buechler, Joe
APPLICANT: Valkirs, Gun
APPLICANT: Gray, Jeff
                                                                                                                                                  ublication No.
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CURRENT FILING DATE: 2001-06-15
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind
             APPLICANT:
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Lonberg, Nils
Biosite Diagnostics, Inc.
GenPharm International
                                                                                                                                                    Application US/09453234
o. US20030091995A1
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84.7%;
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Pred. No. 4
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Pred. No. 5e-36;
5; Mismatches
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; TITLE OF INVENTION: Human Antibodies
; FILE REFERENCE: 020015-000110US
; CURRENT APPLICATION NUMBER: US/09/453,234
; CURRENT FILING DATE: 1999-12-01
; PRIOR APPLICATION NUMBER: US 60/157,415
; PRIOR FILING DATE: 1999-10-02
; NUMBER OF SEQ ID NOS: 112
; SOFTWARE: PATENTIN Ver. 2.1
; SEQ ID NO 106
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; Sequence 110, Application US/09453234 ; Publication No. US20030091995A1 ; GENERAL INFORMATION:
                                                          US-09-453-234-110
                                                                            RESULT 13
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; OTHER INFORMATION: M2-33H
US-09-453-234-106
                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 56
LENGTH: 225
TYPE: PRT
ORGANISM: Homo sapiens
OTHER INFORMATION: M1-3H
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Matches 104; Conservative
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PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
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CURRENT FILING DATE: 1999-12-01
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                                                                                                                                                                                                                                                                                                           Роса 1
                                                                                                                                                                                                                                                                                         104;
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                                                                                                                                                                      62 DSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCARTGWLGPFDYWGOGTLVTVSS 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
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                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDG-IGYFDYWGQGTLVTVSS
                                                                                                                                                                                                            VQLVQSGGGVVQPGRSLRLSCAASGFTFSYYGMHWVRQAPGKGLEWVTL1TYDGDNKYYA
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Biosite Diagnostics, Inc.
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88.1%;
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Pred. No. 6.8e-36;
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Pred. No. 4.8
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APPLICANT: Buechler, Joe

Valkirs, Gunars

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OTHER INFORMATION: M2-31H
US-09-453-234-102
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OTHER INFORMATION: M2-35H
JS-09-453-234-110
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PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 102
LENGTH: 225
TYPE: PRT
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Best Local Similarity 88.1%;
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RRENT FILING DATE: 1999-12-01
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                                                                                                                                                             Hacen 86.8%;
Local Similarity 88.1%;
es 104; Conservative
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ICANT: Valkirs, Gunars
61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR-DWIGYFDYWGQGTLVTVSS 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ADSVKGRETVSRDNSKNTLYLOMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
                                                                                                                             1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTF1SYDGSNKHY 60
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                             ADSVKGRFTVSRDNSKVTLYLQMNSLRAEDTAIYYCARTGWLGPFDYWGQGTLVTVSS 118
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Biosite Diagnostics,
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Biosite Diagnostics,
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b. US20030091995A1
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                                                                                                                                                                      Score 549.5; DB 9; Length 225; Pred. No. 9.7e-36; 5; Mismatches 8; Indels 1
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RESULT 15

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US-09-880-748-1627
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-66-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
PRIOR FILING DATE: 2000-10-17
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CURRENT FILING DATE: 2001-06-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver. 2.0
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                                                                                                                                                                                                                                                                                      Local
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FILING DATE: 2001-03-21
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121 LVTVSS 126
                                         113 LVTVSS 118
                                                                                                                                                                                                                                                               al Similarity
107; Conserv
                                                                                     61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARSPGDDILTGYYKYYFDYWGQGT 120
                                                                                                                   ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCAR----
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Pred. No. 1.7e-35;
5; Mismatches 6
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Search completed: June 3, 2003, 08:52:53 Job time : 27.9898 secs

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Minimum
Maximum
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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193.728 Million cell updates/sec
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Copyright (c) 1993 - 2003 Compugen Ltd.
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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US-09-240-274-150

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US-09-240-274-23

US-09-240-274-23

US-09-240-274-152

US-09-240-274-4

US-09-240-274-4

US-09-240-274-6

US-09-240-274-162

US-09-240-274-162

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US-08-211-202-141
US-09-025-769B-24
US-09-240-274-149
US-09-240-274-8
US-09-240-274-21
US-09-240-274-21
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US-08-331-398A-46
US-08-331-397B-46
US-08-759-804A-46
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US-09-240-274-9
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61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCART----GWLGPFDYWGQGTLVTV 116

QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

; TOPOLOGY: linear; MOLECULE TYPE: peptide US-07-942-245-35

amino acid

TELEX: 6491103
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 120 amino acids

35:

Query Match Best Local Similarity Matches 107; Conserv

Conservative

87.8%;

Score 555.5; DB 1 Pred. No. 2.3e-46; 3; Mismatches 6

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CLASSIFICATION: LECOMMUNICATION TELEPHONE: (202	SOFTWARE: SOFTWARE: RRENT APP: APPLICATION DAY	### 2 PE	eent NO. 5639 NERAL INFORM APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT TITLE OF INV NUMBER OF SEE CORRESPONDEN ADDRESSEE: STREES: STREES	0 2 − 2 2 − 2 5 − 2 5 − 2 5 − 2 5 − 2 6	507 507 508 508 508 508 508 508 508 508 508 508	
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Best Local Similarity
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SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOPTWARE: Patentin Release #1.0, Version CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/331,398A FILLING DATE: 28-0CT-1994 CLASSIFICATION: 435 PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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LOCATION:
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LE OF INVENTION:
LE OF INVENTION:
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ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCA-RTGWLGPFDYWGQGTLVTVSS 118
                                                             QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY 60
                             QVELVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
                                                                                                                                                                                                                                                                                                                  amino acid
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One Market Plaza, Steuart Street Plaza
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FitzGerald,
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88.2%;
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56P1'CL Variable Heavy chain (V-H)"
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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PRIOR APPLICATION DATA:,
US 07/767,331
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OTHER INFORMATION:
OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 38 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990
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SOFTWARE: Patentin
                                                                                                                                                                                                                         NAME/KEY: Protein
LOCATION: 1.119
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                            61 ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCA-RTGWLGPFDYWGQGTLVTVSS 118
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                                                                                                                                      Similarity
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ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARRSARTYYFDYWGQGTLVTVSS 119
                                                         QVELVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
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Specific Antibody Fragments, Fusion Proteins,
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                                                                                                                                                                                             /note= "Human fetal immunoglobulin
56P1'CL Variable Heavy chain (V-H)"
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                                                                                                                                   Score 546.5; DB 2
Pred. No. 1.7e-45;
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                                                                                                                                               Length 119;
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RESULT 4 US-08-759-804A-46

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Best Local :
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TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/331,398
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REFERENCE/DOCKET NUMBER: 015280-126140US
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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OTHER INFORMATION:
OTHER INFORMATION:
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APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
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                                                                                                                                                                                                                                                                NAME/KEY:
61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCA-RTGWLGPFDYWGQGTLVTVSS 118
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T: Two Embarcadero Center, Bighth Floor
San Francisco
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                                         QVELVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
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FitzGerald, David
Brinkmann, Ulrich
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56P1'CL Variable Heavy chain (V-H)"
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Pred. No. 1.7e-45;
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RESULT 5 US-09-227-693-46

US-09-240-274-9

Sequence 9, Application US/09240274 Patent No. 6255455

Sequence 46, Application US/09227693

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                                                                                                                                                                              Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-CCT-1990
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                                                                                                                                                               Local
                                                                                                                                                                                                                                   LOCATION: 1..119
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: gir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 15280-126-1-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: San Francisco
                                                                                                                                          105;
 61
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                                                                                                       1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY 60
                                                                                                                                                             Similarity
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                                 ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAIYYCA-RTGWLGPFDYWGOGTLVTVSS 118
ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARRSARTYYFDYWGQGTLVTVSS 119
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                                                                                                                                                                                                                                                                                         Protein
                                                                                                                                                                                                                                                                                                                                              linear
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                                                                                                                                                                                                                                   /note= "Human fetal immunoglobulin
56Pl'CL VH region"
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                                                                                                                                                             Score 546.5; DB 4
Pred. No. 1.7e-45
                                                                                                                                          Mismatches
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                                                                                                                                                                              DB 4;
                                                                                                                                                                              Length 119;
                                                                                                                                            Indels
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US-09-240-274-24
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                                                                                                                                                                                                                                OTHER INFORMATION: anti-Rh(D) chain D20-09-240-274-24
                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: anti-Rh(D) chain D03 09-240-274-9
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                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                            ARLIER FILING DATE: 1996-10-11
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EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1996-10-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/240,274
                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
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TYPE: PRT
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ITLE OF INVENTION: Rh(D) BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
ITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
                                                                                                                                                                                                                                                                                                                     ENGTH: 125
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.... 6255455
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                                                                                                              1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTWHWVRQAPGKGLEWVTFISYDGSNKHY 60
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                                                                                                                                                                       Similarity
                            ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCARTG------WLGPFDYWGQGTL 113
                                                                            EVQLLESGGGVVQPGRSLRLSCAASGFTFSTYGMHWVRQAPGKGLEWVAVIWFDGSNKEY
     ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAREEVVRGVILWSRKFDYWGOGTL
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                                                                                                                                                        Conservative
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                                                                                                                                                                       84.4%;
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                                                                                                                                                    6; Mismatches
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                                                                                                                                                                   Score 534.5;
Pred. No. 2.5
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Pred. No. 2e-44;
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                                                                          Matches
                                                                                                              Query Match
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                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS LENGTH: 116 amino acid
                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: David W. Clough
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 28
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
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                                                                                             Local Similarity
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                                                                                                                                                                                                                                                                                             TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT/GB92/00883 FILING DATE: 15-MAY-1992
                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 25-SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
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CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 36,107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 23-SE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 60606-6402
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                   1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTF1SYDGSNKHY
                                                                                                                                                                                                   amino acid
QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
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VENTION: production of chimeric antibodies -
VENTION: combinatorial approach
                                                                        Conservative
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24-MAR-1992
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24-MAR-1992
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                                                                                       83.3%;
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                                                                                                                                                                                                                                                          141:
                                                                      Score 527.5; DB 1
Pred. No. 1.1e-43;
3; Mismatches 8
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                                                                                                          DB 1;
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Matches Query Match

FEATURE:

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Gaps

6 60 Query Match

Local

FEATURE:

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US-09-240-274-149
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US-09-025-769B-24
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                                    GENERAL INFORMATION:
                                                      Patent No.
                                                                        Sequence 149,
                                                                                                                                                                                                                                                                                                                 Matches 101;
                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 18-FEB-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 95 11:
FILING DATE: 18-AUG-1995
ATTORNEY/AGENT INFORMATION:
NAME: James F. Haley, Jr., Est
REGISTRATION NUMBER: 27,794
APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: : (212)596-9090
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 117 amino acid
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (212)596-9000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
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6300064
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                                                                                                                                                                 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARDRG-GSGDYWGQGTLVTVSS
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                                                                         Application US/09240274
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                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : (212)596-9090
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Moroney, Simon
Plueckthun, Andreas
VENTION: Protein/(Poly)peptide libraries
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Ilag, Vic
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Pred. No. 1.1e-43;
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US-09-240-274-8
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                                                                                                                                                           Matches
                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8, Applia Patent No. 625545
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                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
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CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
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APPLICANT: Siegel, Donald L.
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NUMBER OF SEQ ID NOS: 224
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EARLIER APPLICATION NUMBER: 60/028,550
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                                                                                                                                                                                                                                                                                             TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens FEATURE:
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LENGTH: 126
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                                                                                                                                                         99; Conservative
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                                                                                                                1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYTMHWVRQAPGKGLEWVTFISYDGSNKHY
                          ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAIYYCAR-----TGWLGPFDYWGQGTL 113
ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARENQIKLWSRYLYYFDYWGQGTL
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79.2%;
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Pred. No. 4.3e-43;
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Pred. No. 1.3e-43;
5; Mismatches 10
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                     Query Match
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Best Local
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                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/240,274
                                                                                                                                                                                                                                                                                                                                             APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
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                                                                                                                                                                                                          NUMBER OF SEQ ID
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NUMBER OF SEQ ID NOS: 224
                                                                                                                                                                                                                                                             CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
                                                                                                             ORGANISM: Homo sapiens
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NUMBER OF SEQ ID NOS: 224
                                                                           OTHER INFORMATION: anti-Rh(D) chain
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                                                                                                                                                    ENGTH: 125
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   Local Similarity
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Score 521.5; DB 4;
Pred. No. 4.3e-43;
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Pred. No. 4.3
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               Length 125;
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US-09-240-274-10
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                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                              Sequence 10, Appli
Patent No. 6255455
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SEQ ID NO 22
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            CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1996-10-11
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NUMBER OF
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EARLIER FILING DATE: 1996-10-11
NUMBER OF SEQ ID NOS: 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARLIER APPLICATION NUMBER: 60/081,380 EARLIER FILING DATE: 1998-04-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT FILING DATE: 1999-01-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: anti-Rh(D) chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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Post-processing: Minimum Match
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Ч н н
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C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jan-2000
C;Accession: 169017
R;Chin, L.T.; Duenas, M.; Levi, M.; Hinkula, J.; Wahren, B.; Borrebaeck, C.A. Immunol. Lett. 44, 25-30, 1995
A;Title: Molecular characterization of a human anti-HIV 1 monoclonal antibody A;Reference number: 154563; MUID:95237884; PMID:7721339
A;Accession: 169017
                    A;Gene: Ig Vkappa
C;Superfamily: im
F;16-90/Domain: ir
                                                                                                                   A;Status: preliminary; translated A;Molecule type: mRNA A;Residues: 1-107 <RES>
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I69017
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C;Genetics:
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                Superfamily: immunoglobulin V region; immunoglobulin homology;16-90/Domain: immunoglobulin homology <IMM>
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;Date: 19-May-1994 #sequence_revision 26-May-1995 #text_change 21-Jan-2000
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Best Local :
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Pred. No. 1.5e
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Reywords: heterotetramer; immunoglobulin
F;37-111/Domain: immunoglobulin homology <IMM>
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C;Date: 06-Mar-1994 #sequence_revision 26-May-1995 #text_change 21-Jan-2000
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;Title: Evolution of immunoglobulin V genes: evidence indicating that recently duplicating that recently duplicating that recently duplicating that recently duplicating that recently duplication is provided that recently duplication is provided to the control of the co
                                                                                                                                                                                                                                                                                                                                                      ;38-112/Domain:
                                                                                                                                                                                                                                                                                                                                                                           Cross-references: GB:K01323; NID:g185995; PIDN:AAAS8931.1; PID:g185996; Superfamily: immunoglobulin V region; immunoglobulin homology keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Date: 03-Aug-1990 #sequence_revision 03-Aug-1990 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Accession: S40369

[Ricession: S40369

[Riein, R.; Jaenichen, R.; Zachau, H.G.]

[Riein, R.; Jaenichen, R.; Zachau, H.G.]

[Riein, R.; Jaenichen, R.; Zachau, H.G.]
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                                                                                                                                                                                                                                                           Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Residues: 1-117 <BEN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bentley,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D.L.; Rabbitts, T.H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                             1 DIQMTQSPSSLSASVGDRVTITCRASQGISSWTAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
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                                                                                                                                                                                                               95; Conservative
                                                                                                                                                                                                                                                   Similarity
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RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPYTFGQGTKLEIK 128
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                                                                                                                                                                                                                                                                                                                                                  immunoglobulin homology <IMM>
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                                                             rqspsslsasvgdrvtitcrasqgisswlawyqqkpekapksliyaasslqsgvps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89.0%;
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                                                                                                                                                                                                                                        88.7%; Score 493; DB 2; 100.0%; Pred. No. 3.1e-37;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 495; DB 2;
Pred. No. 2.3e-37;
4; Mismatches 6
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Pred. No. 2.4e-38;
3; Mismatches 5
                                                                                                                                                                                                           Mismatches
   95
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                                                                                                                                                                                                                                                                         Length 117
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F;23-117/Product: 1g Kappu - Inmunoglobulin
                                                                                           C;Complex: An immunoglobulin heterotetramer subunit consists of two identical light hain disulfide bonds. In some cases, such as IgA and IgM, the subunits associate in c;Superfamily: immunoglobulin V region; immunoglobulin homology
                                                      F;1-22/Domain: signal
                                                                                                                                                                      A;Cross-references: GDB:136264
A;Map position: 2p12-2p12
A;Introns: 19/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: Human immunoglobulin variable region genes - DA;Reference number: A93241; MUID:81098966; PMID:6779204A;Accession: A01881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Bentley, D.L.; Rabbitts, T.H.
Nature 288, 730-733, 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Homo sapiens (man)
C;Date: 31-Mar-1981 #sequence_revision
C;Accession: A01881; A21056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Gene: GDB:IGKV1
                                                                                                                                                                                                                                                                                A;Cross-references: GB:K01322; NID:g185993; PIDN:AAA58930.1; PID:g185994
                                                                                                                                                                                                                                                                                                                                                                                                                                         R; Bentley, D.L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 1-117 <BEN1>
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: S40312; MUID:94080891; PMID:8258341 A;Accession: S40336
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:V00558; GB:J00244; GB:J00246; NID:g33176; A;Note: the sequence was determined from the germline gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Klein, R.; Jaenichen, R.; Zachau,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Date: 19-May-1994 #sequence_revision 26-May-1995 #text_change 21-Jan-2000 C;Accession: S40336
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A; Residues: 1-124 < KLE>
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                                                                                                                                                                                                                                                                                                        ;Molecule type: DNA
;Residues: 1-117 <BEN2>
                                                                           Keywords: heterotetramer
                                                                                                                                                                                                                                                                                                                                                       Accession: A21056
                                                                                                                                                                                                                                                                                                                                                                       Reference number: A21056;
                                                                                                                                                                                                                                                                                                                                                                                            Title: Evolution of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molecule type: DNA
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 DIQLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASTLQSGVPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Rabbitts,
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           mmunoglobulin homo:
                                                      sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                         immunoglobulin V genes: evidence indicating 21056; MUID:83129397; PMID:6402305
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                              (HK101)
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R;Klein, R.; Jaenichen, R.; Zachau, H.G.
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C;Date: 06-Mar-1994 #sequence_revision 26-May-1995
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                                                                                                                                                                                                                                                                                                                                      A;Title: Expressed human immunoglobulin chi genes and their A;Reference number: S40312; MUID:94080891; PMID:8258341 A;Accession: S40331
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A; Residues: 1-117 < BEN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Reference number:
A;Accession: S46376
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Best Local S
Matches 95
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MBO J. 13, 2951-2962, 1994
;Title: Human lupus anti-DNA autoantibodies undergo essentially
.Peference number: S46369; MUID:94313975; PMID:8039491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g kappa chain V-J region (T33-14) - human (fragment)
                                                                                                                                                                                                    CYCOSB-Teferences: EMBL:X72441; NID:g441350; PIDN:CAAS1109.1; PID:g441351; Superfamily: immunoglobulin V region; immunoglobulin homology Keywords: heterotetramer; immunoglobulin; heterotetramer; immunoglobulin; j32-106/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;Cross-references: EMBL:227177; NID:g415969; PIDN:CAA81701.1; PID:g415970; Superfamily: immunoglobulin V region; immunoglobulin homology Keywords: heterotetramer; immunoglobulin homology; 25-99/Domain: immunoglobulin homology <IMM>
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Best Local S
Matches 94
                                                                                                                                                                                                                                                                                Molecule type: mRNA
Residues: 1-123 <KLE>
                                                                                                                                                                                                                                                                                                                 Status: preliminary; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Species: Homo sapiens (man)
Date: 27-Jan-1995 #sequence_revision 01-Sep-1995 #text_change
                                                                                                                                                                    Query Match
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                                                                                                                                                                                                                                                                                                                                                                                           J. Immunol. 23, 3248-3271, 1993
                                                                                                                                                    Local
                        61
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                                                                                                                                                    Similarity
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94; Conservative
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   RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK
                                                                                   DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQXPEKAPKSLIYAASSLQSGVPS
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                                                       DIOMTOSPSSLSASVGDRVTITCKASOSISSYLMWYQQKPGKAPKLLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESGSGSGTDETLITISSLOPEDFATYYCOOANSFPRGFGFGTKVDIK 116
                                                                                                                                   Conservative
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98.9%;
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Pred. No. 8.8e-37;
4; Mismatche's 8
                                                                                                                             Score 487; DB 2;
Pred. No. 1.1e-36;
1; Mismatches 8
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Pred. No. 8.8e-37;
0; Mismatches 1
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                                                                                                                                                                Length 123;
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y kappa chain V-J region (T24-3) - human (fragment species: Homo sapiens (man) species: Acan-1995 #sequence_revision 01-Sep-1995 Accession: $46371; $38645
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A;Cross-references: EMBL:X72462; NID:g441392; PIDN:CAA51130.1; PID:g441393 C;Superfamily: immunoglobulin region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin C;Keywords: heterotetramer; immunoglobulin F;36-110/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eur. J. Immunol. 23, 3248-3271, 1993
A;Title: Expressed human immunoglobulin chi genes and their
A;Reference number: S40312; MUID:94080891; PMID:8258341
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F; 33-107/Domain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Homo sapiens (man)
C;Date: 19-May-1994 #sequence_revision 21-Jul-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Klein, R.; Jaenichen, R.; Zachau, H.G.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   f,Cross-references: EMBL:X72459; NID:g441386; PIDN:CAA51127.1;
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Superfamile: heterotetramer; immunoglobulin
C;Reywords: heterotetramer; immunoglobulin
F;33-107/Domain: immunoglobulin homology <IMM>
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A;Title: Expressed human immunoglobulin chi genes and their
A;Reference number: S40312; MUID:94080891; PMID:8258341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Klein, R.; Jaenichen, R.; Zachau, H.G.
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                                                                                                                                                                                            Query Match
Best Local S
Matches 95
                                                                                                                                                                                                                                                                                                                                                                                                                  Molecule type: mRNA
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                      61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                              21 DIOMTOSPSSISASVGNRVTITCRASOGISNYLAWYQQXPGKVPKLLIYAASTLQSGVPS
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                                                                                                                          1 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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RFSGSGSGTDFSLTISSLQPEDVATYYCQKYNSVPRTFGQGTKVEIK
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90.6%;
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Pred. No. 1.2e-36;
4; Mismatches 6
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Pred. No. 1.2e-36;
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(fragment)

#text_change

21-Jan-2000

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C;Species: Homo sapiens (man)
C;Date: 06-Mar-1994 #sequence_revision 26-May-1995
C;Accession: S40334
                                                                                                                                                    R; Klein, R; Jaenichen, R; Zachau, Eur. J. Immunol. 23, 3248-3271, 199
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                                          A; Molecule type: mRNA
A; Residues: 1-132 < KL
                                                                          A; Status: preliminary; translation
                                                                                                           A/Title: Expressed human immunoglobulin chi genes and their A/Reference number: S40312; MUID:94080891; PMID:8258341
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A;Title: Human lupus anti-DNA autoantibodies undergo essentially primary V(chi) gene
A:Reference number: S46369; MUID:94313975; PMID:8039491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: EMBL:Z27173
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: immunoglobulin
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                                                                                                                                    ur. J. Immunol. 23, 3248-3271, 1993
;Title: Expressed human immunoglobu
   Cross-references: EMBL:X72444
Superfamily: immunoglobulin V
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;Date: 07-May-1995 #sequence_revision 21-Jul-1995 #text_change 21-Jan-2000
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2951-2962, 1994
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                                                                                                                                                                                                                                                                                                                                   FSGSGSGTDFTLTISCLQSEDFATYYCQQYYSYPRTFGQGTKVEIK 127
                                                                                                                                                                                                                                                                                                                                                                                                                 IRITQSPSSLSASTGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASTLQSGVPSR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESGSGSGTDFTLTISSLQPEDEATYYCQQYNSY -- PETEGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Chastagner, P.; Zouali, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DIOMTOSPSTLSASVGDRVTITCRASRSISTWLAWYQQXPGKAPKLLIYKASTLESGVPS
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region; immunoglobulin homology

    Mismatches

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Pred. No. 2.7e-36;
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Pred. No. 1.6e-36;
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A;Cross-references: BMBL:Z18327
C;Superfamily: immunoglobulin V region; imm
C;Keywords: heterotetramer; immunoglobulin
F;16-90/Domain: immunoglobulin homology <IV
                                                                                                                                                                                                                                                                                                                                               C;Date: 06-Jan-1995
C;Accession: 830521
R;Mariette, X.
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A;Title: Human anti-self antibodies with high specificity A;Reference number: S36256; MUID:93178448; PMID:7679990
A;Accession: S36264
                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-108 < MAR>
                                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: S30521
                                                                                                                                                                                                                                                                                                     submitted to the EMBL Data A; Reference number: $30520
                                                                                                                                                                                                                                                                                                                                                                                                             Ig kappa chain V region C; Species: Homo sapiens
                                                                                                                                                                                                                                                                A; Status: preliminary
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A; Residues: 1-107 < GR
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C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 21-Jan-2000
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F;37-111/Domain: immunoglobulin homology 
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87.9%;
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                                                                          Score 479.5;
Pred. No. 4.6
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Pred. No. 4.1e-36;
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Pred. No. 4.2e-36;
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KV1I_HUMAN
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EMBL; K01324; AAA58932.1; --
EMBL; V00558; CAA23824.1; --
PIR; A01881; KIHUI1.
PIR; A21056; A21056.
HSSP; P01607; 1REI.
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Pfam; PF00047; ig; 1
SMART; SM00406; IGv; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201601;
21-UUL-1986 (Rel. 01,
21-UUL-1986 (Rel. 01,
15-UUL-1999 (Rel. 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=83129397; PubMed=6402305;
Bentley D.L., Rabbitts T.H.;
"Evolution of immunoglobulin V ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bentley D.L., Rabbitts T.H.;
"Human immunoglobulin variable region kappa genes and a pseudogene.";
Nature 288:730-733(1980).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig kappa chain V-I region HK101 precursor (Fragment).
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                             Cell 32:181-189(1983).
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MEDLINE=81098966; PubMed=6779204;
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           IG KAPPA CHAIN V-I REGION HK101. FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
FRAMEWORK-3.
COMPLEMENTARITY-DETERMINING-3.
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KV3E HUMAN
KV5M MOUSE
KV4C HUMAN
KV5M MOUSE
KV4C HOMSE
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HSSP; P80362; 1WTL.
InterPro; IPR003006; Ig_WHC.
InterPro; IPR003596; Ig_v.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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Pred. No. 9.5e-43;
9; Mismatches 7
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COMPLEMENTARITY-DETERMINING-3
FRAMEWORK-4.
BY SIMILARITY.
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
Ig kappa chain V-I region EU.
                                                                                                                                                                 Gottlieb P.D., Cunningham B.A., Rut
"The covalent structure of a human
acid sequence of the light chain.";
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HSSP; P01607; 1REI.
InterPro; IPR003006;
                                                                                                                                                                                                                           SEQUENCE.
MEDLINE=71064023; PubMed=5489770;
                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
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"The primary structure of (macroglobulin Gal.), I. 1
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e amino acid
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COMPLEMENTARITY-DETERMINING-1.
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Catarrhini;
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nan gamma G-immunoglobulin.
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MEDISTIPIDE BOND.
MEDISTAGE 11064027; PubMed=4923144;
MEDIAME=71064027; PubMed=4923144;
Gall W.E., Edelman G.M.;
"The covalent structure of a human intrachain disulfide bonds.";
"Intrachain disulfide bonds.";

Biochemistry 9:3155-3161(1970)

Biochemistry

9:3188-3196(1970) NEOUS: THE C REGIC

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SEQUENCE
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-!- MISCELLANEOUS: THE C REGION OF THIS CHAIN HAS THE INV (3) MARKER.
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P01604;
21-JUL-1986
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SEQUENCE
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SMART; SM00406; IG
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SP; P01607; 1REI.
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- MISCELLANEOUS: THE C RE
- MISCELLANEOUS: THIS IS
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kappa chain V-I region Kue.
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Score 471;
Pred. No. !
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COMPLEMENTARITY-DETERMINING-3
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COMPLEMENTARITY-DETERMINING-2.
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COMPLEMENTARITY-DETERMINING-2.
FRAMEWORK-3.
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COMPLEMENTARITY-DETERMINING-1
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Proc. Natl. Acad. Sci. U.S.A. 80:4837-4841(1983)
                                                                                                                                                                                                                                              SEQÜENCE
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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SMART; SM00406; IG\
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Goni F., Frangion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Joni F., Frangione B.;
'Amino acid sequence of the Fv region of a human monoclonal IgM
(protein WEA) with antibody activity against 3,4-pyruvylated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCI. U.S.A. 80:4837-4841(1983)
THIS CHAIN WAS OBTAINED FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       region WEA.
                                                                                                                                                                                                                                              11840
                                                                                                                                                                                                                                                                                                                                                                                       Ig_MHC.
                                                                                                                                                                                                           84.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                  Monoclonal antibody.
FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
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                                                                                                                                                                                               7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                GALACTOSE AND ISOLATED FROM A PATIENT
                                                                                                                                                                                                 Score 469; DB 1;
Pred. No. 8.1e-42;
7; Mismatches 9
                                                                                                                                                                                                                                                                            COMPLEMENTARITY-DETERMINING-2.
FRAMEWORK-3.
COMPLEMENTARITY-DETERMINING-3.
FRAMEWORK-4.
                                                                                                                                                                                                                                                                                                                          FRAMEWORK-2
                                                       PRT;
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                                                                                                                                                                                                                                             9249B61F0945618C CRC64;
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                     update)
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                                                                                                                                                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                            107
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Best Local S
Matches 93
                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
NON TER
SEQUENCE
                                                                                                                                                                                                                                                   KV1D_HUMAN
P01596;
                                                                                                        MEDLINE=75075135; PubMed=4216454; Milstein C.P., Deverson E.V.; Primary structure of kappa light chain
                                                                                                                                                                                                                                                                        HUMAN
                                                                                                                                                                                                                  21-JUL-1986
21-JUL-1986
15-JUL-1999
        Pfam;
                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                             SEQUENCE
                                                                                                                                                              NCBI_TaxID=9606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hoppe-Seyler's Z.
                                                                                                                                                                                                iomo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR; A01868; K1HUHU.
HSSP; P80362; 1WTL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          subgroups."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                                                                                                        g kappa chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig. 25 PF00047; ig; 1. SMART; SM00406; IGV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aathanabe S., Hilschmann N.;

"The primary structure of a monoclonal kappa-type immunoglobulin L-

"The primary structure of a monoclonal kappa-type immunoglobulin L-

"The primary structure of a monoclonal kappa-type immunoglobulin L-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Oppe-Seyler's Z. Physiol. Chem. 351:1291-1295(1970).
- MISCELLANEOUS: THE C REGION OF THIS CHAIN HAS THE
- MISCELLANEOUS: THIS IS A BENCE-JONES PROTEIN.
                                                          MISCELLANBOUS:
                                                                              MISCELLANEOUS:
                                     A01864; K1HUAR.
; P80362; 1WTL.
                                                                      MARKBR.
     Pro; IPR003006; Ig_MHC
Pro; IPR003596; Ig_v.
PF00047; ig; 1.
                                                                                                                                                                                                                                                                                                                 61
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                                                                                                                                                                                                                                                                                                                                                                                                   93;
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Biochem. 49:377-391(1974).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 co; IPR003596;
                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                             RFSGSGSGTDFTLTISSLQPEDFATYYCQQNYITPTSFGQGTRVEIK 107
                                                                                                                                                                                                                                                                                                                                  RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                      DIOMTOSPSSLSASVGDRVTITCRASOSISSYLSWYQQKPGKAPQVLIYAASSLPSGVPS
                                                                                                                                                                                                                                                                                                                                                                          DIOMTOSESSISASVGDRVTITCRASQGISSWLAWYQQKEEKAEKSLIYAASSLQSGVES
                                                                                                                                                                          Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PR003006;
                                                                                                                                                                                                                   (Rel.
                                                                                                                                                                                                                                       (Rel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                            108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                       V-I region
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                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       region; Bence-Jones
23 FRAMEWOR
                                                                                                                                                                                                                 01, Last sequence up 38, Last annotation
                                                          SIHT
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49
56
88
97
                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ).
Chordata; Craniata; Vertebrata; Buteleostomi;
Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88
                                                                                                                                                                                                                                                                                                                                                                                                                                            11671
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                                                                                                                                                                                                                                                                                                                                                                                                            84.2%;
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Pred. No. le-41;
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COMPLEMENTARITY-DETERMINING-3
FRAMEWORK-4.
BY SIMILARITY.
                                                         WAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPLEMENTARITY-DETERMINING-1. FRAMEWORK-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPLEMENTARITY-DETERMINING-2
                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                           08D3A6160D8D0618
                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                         ISOLATED
                                                                             THIS CHAIN
                                                                                                                                                                                                                on update)
                                                                                                                                                                                                                                                            107
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                                                                                                         from a
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                                                       FROM A MYELOMA PROTEIN
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                                                                                                           human
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                                                                            THE
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                                                                                                           myeloma
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                                                                                                                                                           Query Match
Best Local S
Matches 86
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Best Local
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CARBOHYD 28 28 N-LINKED (GLCNAC.
NON_TER 107 107
SEQUENCE 107 AA; 11703 MW; E1BF0DF9844C77746 A
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                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00047; ig;
SMART; SM00406; IG:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; A01871; K1HULY.
HSSP; P01607; 1REI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Capra J.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=77038198; PubMed=824717;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P01605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      interPro; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      specificities.'
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig kappa chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MISCELLANEOUS: THE SECOND AND THIRD HYPERVARIABLE REGIONS OF CHAIN ARE IDENTICAL WITH THOSE OF THE HUMAN POM V-III KAPPA C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MISCELLANEOUS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90;
                                                                                                                                                                             Similarity
                          RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                         DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPBKAPKSLIYAASSLQSGVPS
RESGSGSGTDETETISSLOPEDIATYYCOOYNNWPPTEGOGTKVEVK
                                                                          DIOMTOSPSSLSVSVGDRVTITCOASONVNAYLNWYQQKPGLAPKLLIYGASTREAGVPS
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                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                        V region.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           globulins
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globulins (Lay/Pom)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IGV;
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107
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                                                                                                                                                                             83.1%;
80.4%;
                                                                                                                                                                                                                                       11834 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83.7%;
                                                                                                                                                       Score 462; DB
Pred. No. 4.3e
L1; Mismatches
                                                                                                                                                                                                                                                                            COMPLEMENTARITY-DETERMINING-3. FRAMEWORK-4. BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                   FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
                                                                                                                                                                                                                                                                                                                                        FRAMEWORK-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 465.5; DB 1
Pred. No. 1.9e-41;
9; Mismatches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E1BF0DF9844C3346 CRC64;
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                                                                                                                                                                             DB 1;
.3e-41;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DETERMINANTS
                                                                                                                                                         10;
                                                                                                                                                                                            Length 108;
                                                                                                                                                                                                                                       CRC64;
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                                                                                                                                                         Indels
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107
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KV1S_HUMAN STANDARI

P01611;

21-JUL-1986 (Rel. 01, 02)

21-JUL-1986 (Rel. 01, 12)

15-JUL-1999 (Rel. 38, 13)
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P04431;
13-AUG-1987
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SEQUENCE
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    MEDLINE=85014148; PubMed=6091049; MEDLINE=85014148; PubMed=6091049; Klobeck H.G., Combriato G., Zacha "Immunoglobulin genes of the kapp lymphoid cell lines are closely r
                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
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4EDLINE=81092279; PubMed=6778806;

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4ETHERINE STATE OF THE PRIMARY STRUCTURE OF THE PRIMARY STR
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InterPro; IPR003596; Ig_v.
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Mammalia; Eutheria; Primates;
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- MISCELLANEOUS: THE C REGION OF THIS CHAIN HAS THE
- MISCELLANEOUS: THIS IS A BENCE-JONES PROTEIN.
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-AUG-1987 (Rel. 05, Last
-JUL-1999 (Rel. 38, Last
kappa chain V-I region
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Combriato G., Zachau H.G.; in genes of the kappa light lines are closely related.
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23 FRAMEWORK-1.
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Catarrhini; Hominidae
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                                  entities requires a license agreement or send an email to license@isb-sib.cl
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Nature 288:730-733(1980).
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COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
FRAMEWORK-3.
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4; Mismatches 1:
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RESULT 13
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21-JUL-1986
15-JUL-1999
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P01594;
    InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; Ig; 1.
                                                         Biophys. Struct. Mech. 1:139-146(1975).

-!- MISCELLANEOUS: THE STRUCTURE OF THE MOLECULAR REPLACEMENT. METHODS USING REGION OF THE KAPPA CHAIN REI.

-!- MISCELLANEOUS: THE C REGION OF THIS STRUCKLANEOUS: THIS IS A BENCE-JONES.
                                                                                                                                                                                                                                                                                                                                                                                          HUMAN
                                                                                                                               Fehlhammer H., Schiffer M., Epp O., Schwager P., Steigemann W., Schramm "The structure determination of the
                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
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PIR; A01882; K
HSSP; P01607;
                                                                                                                       Bence-Jones protein Au."
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                                                                                                                                                               MEDLINE=77022433;
                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                          Ig kappa chain
                                                                                                                                                                           C-RAY CRYSTALLOGRAPHY.
                                                                                                                                                                                                           orotein Au).";
                                                                                                                                                                                                                                                  WEDLINE=72189444; PubMed=5028201;
                                                                                                                                                                                            oppe-Seyler's Z. Physiol. Chem. 353:345-370(1972)
                                                                                                                                                                                                               Rule of antibody structure. The primary ammunoglobulin L-chain of the kappa-type,
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InterPro; IPR003596; Ig_v.
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                                                          A BENCE-JONES
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Pred. No. 1
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COMPLEMENTARITY-DETERMINING-2.
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RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK

DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS

LSASVGDRVTITCQASQDINHYLNWYQQGPKKAPKILIYDASNLETGVPS

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RESULT 14
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HSSP; P01607; 1REI.
                                                                                                                                                                                                          "The amino acid sequence of a kappa type Bence-Jones protein. complete sequence and the location of the disulfide bridges.", J. Biol. Chem. 244:3550-3560(1969).
                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                       DOMAIN
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                                                                                                                                                          InterPro; IPR003006; Ig_wHC.
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21-JUL-1986
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                                      11992 MW;
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79.4%;
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        Score 442; DB 1
Pred. No. 5e-39;
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COMPLEMENTARITY-DETERMINING-3
FRAMEWORK-4.
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Pred. No. 2.5e-39;
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COMPLEMENTARITY-DETERMINING-2.
FRAMEWORK-3.
COMPLEMENTARITY-DETERMINING-3.
FRAMEWORK-4.
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Catarrhini; Hominidae;
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RESULT 15

KV10_HUMAN

ID KV10_HUMAN

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Epp O., Lattman E.E., Schiffer M., Huber R., Palm W.;
"The molecular structure of a dimer composed of the variable portions
of the Bence-Jones protein REI refined at 2.0-A resolution.";
Biochemistry 14:4943-4952(1975).
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NIAMOC
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InterPro; IPR003006; Ig_wHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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Hoppe-Seyler's Z. Physiol. Chem. 356:167-191(1975).
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
19 kappa chain V-I region Rei.
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11902 MW; 5
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FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
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                                9E8143E1188BCE2A CRC64;
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                61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEI 106
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RFSGSGSGTDYTFTISSLQPEDIATYYCQQYQSLPYTFGQGTKLQI 106
                                                  DIQMIQSPSSLSASVGDRVTITCQASQDIIKYLNWYQQTPGKAPKLLIYEASNLQAGVPS 60
                                                                                                        Conservative
                                                                                                                  79.5%;
81.1%;
                                                                                                     Score 442; DB 1
Pred. No. 5e-39;
7; Mismatches
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                                                                                                                              Length 108
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Search completed: June 3, 2003, 08:15:44 Job time: 10.8601 secs

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Result
No.
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Perfect score:
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2: sp_bacteria:*
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sp_virus:*
sp_vertebrate:*
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413.506 Million cell updates/sec
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(c) 1993 - 2003 Compugen Ltd
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Q9R1A5
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SEQUENCE
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SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
MEDLINE-98277L39; PubMed=9614934;
Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PP00047; ig; 1.
SMART; SM00406; IGv; 1.
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Eukaryota; Metazoa; C
Mammalia; Eutheria; P
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
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01-MAY-2000
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                                              1 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                                                                                                                              Similarity 89.'
96; Conservative
DIQMTQSPSSLSASVGDRVTITCRASQGISNYLAWYQQKPGKVPKSLIYAASTLQSGVPS
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108 AA;
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11633 MW;
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Primates;
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                                                                                                                           Score 492; DB 4;
Pred. No. 5.1e-45;
5; Mismatches 6
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Best Local
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EMBL; AF035037; AAD56273.1; -.
HSSP; P01607; IREI.
                                                            Clin.
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SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
Titu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                            01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
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SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
MEDLINE=98277139; Van der Merwe P.L.;
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Q9UL79;
01-MAY-2000
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                                                                                               Myosin-reactive autoantibodies in
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SMART; SM00406; IGv; 1.
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Eukaryota; Metazoa; C
Mammalia; Eutheria; P
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Myosin-reactive immunoglobulin light chain v
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108 AA;
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; Pred. No. 2.6e
5; Mismatches
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Catarrhini; Hominidae;
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Catarrhini;
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Best Local S
Matches 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local &
Matches 95
                                                               Q9UL81;
Q9UL81;
01-MAY-2000
01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003596;
Pfam; PF00047; 19; 1.
SMART; SM00406; IGv;
NON TER 108 10
SEQUENCE 108 AA; 1:
                                                                                                                                                                                                                                                                                             NON_TER
 Eukaryota;
Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                        variable region (Fragment).
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae
                     Homo sapiens (Human)
                                         Myosin-reactive
                                                   01-DEC-2001
                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                 Pfam;
                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98375893; PubMed=9712075; Adderson E.E., Shikhman A.R., Ward K.E., "Molecular analysis of polyreactive monorheumatic carditis: human anti-N-acetylg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-DEC-2001 (TrEMBLrel 19,
01-DEC-2001 (TrEMBLrel 19,
01-MAR-2002 (TrEMBLrel 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q96SA9;
01-DEC-2001
                                (Fragment).
                                                                                                                                                                                                                                                                                                                                        EMBL; U96396; AAB68785.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anti-streptococcal/anti-myosin
                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                              nterPro;
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                                                                                                                                                                                                                                                                                                               PF00047; ig; 1.
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                                                                                                                                                                    RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPP-TFGQGTKVEIK 107
                                                                                                                                                                                                               DIOMIOSPSSLSASVGDRVTITCRASOGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
 ; Metazoa;
Butheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK
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                                                                                                                                                                                                                                                                                                                 IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                  107
107 AA;
                                                  (TrEMBLrel.
                                                                         (TrEMBLrel.
                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TrEMBLrel.
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                                       MMBLrel. 13, Created)
EMBLrel. 13, Last sequence update)
EMBLrel. 19, Last annotation update)
immunoglobulin light chain variable
                                                                                                                                                                                                                                                                                                                                                           genes.
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 Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108
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                                                                                                                                                                                                                                                                                MW;
                                                                                                                                                                                                                                                                                                                                                                    anti-N-acetylglucosamine/anti-myosin
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                                                                                                                                                                                                                                                 Score 464.5; DB '
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Pred. No. 1.5e-42;
2; Mismatches 10
Craniata; V
Catarrhini;
                                                                                               PRT;
                                                                                                                                                                                                                                                                                  4BB43E9C5B577F16 CRC64;
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                                                                                                                                                                                                                                      Mismatches
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                                                                                               107
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       Vertebrata;
                                                                                              8
                                                                                                                                                  SYSTLIFGGGTKVEIK
                                                                                                                                                                                                                                                                                                                                                                               Cunningham M.W.;
clonal antibodies
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Hominidae;
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                                                                                                                                                                                                                                       Indels
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          Euteleostomi;
                                        region
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
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RESULT
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Best Local :
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                                                                                                                                                                                                                                  Strausberg R.;
Submitted (APR-2002) to the E
EMBL; BC027418; AAH27418.1; -
Hypothetical protein.
SEQUENCE 234 AA; 25857 MW;
Q96PF6;
Q96PF6;
01-DEC-2001
01-DEC-2001
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                        01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 25.9 By protein.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae
                                                                                                                                                                                                                                                                                                                                                                                                                         Q8R062
Q8R062;
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Young D.C.
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EMBL; AF035033; AAD56269.1; -...
HSSP; P01607; 1REI.
                                                                                                                                                                                                                                                                                                FISSUE=COLON;
                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQÜENCE
                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fetus.";
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'; SM00406; IGv; 1.
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                                                                                                                                                                                            79;
                                                                                                                                                                                                      Similarity
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                                                                                                                                                                 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                                                                                                                                              DIOMTOTTSSLSASLGDRVTISCSASQGISNYLNWYQQKPDGTVKLLIYYTSSLHSGVPS
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107 AA;
(TrEMBLrel. 19, (TrEMBLrel. 19, (TrEMBLrel. 20,
                                                                                                                                                                                            Conservative
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                                             PRELIMINARY;
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                                                                                                                                                                                                                                       25857 MW;
                                                                                                                                                                                       74.1%; Score 412; DB 11;
73.8%; Pred. No. 4.7e-36;
tive 13; Mismatches 15
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84.3%;
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Created)
Last sequence update)
Last annotation updat
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Pred. No. 2e
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Sciurognathi; Muridae;
                                             PRT;
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                                                                                                                                                                                                                                       4EB08C81426AEAB1 CRC64;
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                                            116
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ches 10;
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Matches
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Best Local
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Submitted (SEP-2001) to the EMBL/GenBank/DDBJ
EMBL; BC013496; AAM13496.1; -.
InterPro; IPR003006; IG_MHC.
Pfam; PF00047; ig; 2.
PROSITE; PS00290; IG_MHC; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                               Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical 25.8 kDa protein (Fragment) Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.

MEDLINE=21361171; PubMed=11468171;
Comenzo R.L., Zhang Y., Martinez C.,
"The tropism of organ involvement in
contributions of Ig V(L) germ line go
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00047; ig; 1.
NON_TER 1
NON_TER 116 11
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InterPro; IPR003006; Ig_MHC.
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Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                           1 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                         . Similarity . 78; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
79; Conserv
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                                                 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK
                                                                                                                               DIQMTQTTSSLSASLGDRVTISCSGSQGIANYLNWYQQKPDGTVKLIYYTSSLHSGVPS
RESGSGSGTDYSLTISNLEPEDIATYYCOOYRYLPWTEGGGTKLEIK
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                                                                                                                                                                                                                                                                                                                                                                                                            233 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                        25781 MW;
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73.8%;
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                                                                                                                                                                                                                                                                     Score 403; DB 11;
Pred. No. 4.3e-35;
2; Mismatches 17;
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Pred. No. 8.5e-36;
1; Mismatches 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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Catarrhini; Hominidae;
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01-MAY-2000
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(Fragment).
(Homo sapiens (Human).
Homo sapiens (Human).
Metazoa; Chordata;
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MEDLINE=98277139; PubMed=9614934;
Liu B., Van der Merwe P.L.,
                             NON_TER
                                                                                                                                                                          Clin. Immunol. Immunopathol. 87:184-192(1998)
EMBL; AF035031; AAD56267.1; -.
           SEQUENCE
                                                                        SMART;
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MEDLINE=98277139; PubMed=9614934;
Wu X., Liu B., Van der Merwe P.L.,
Young D.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                          HSSP; P80362;
                                                                                                                                                                                                                                       "Myosin-reactive autoantibodies in rheumatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin kappa chain variable
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EMBL; AF035029; AAD56265.1;
                                                                                                                 nterPro
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InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fetus."
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                                                                                        Pro; IPR003596; Ig_v. PF00047; ig; 1.
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                                                                                                                              IPR003006; Ig_MHC.
         108
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(TrEMBLrel. 19, Last annotation update)
tive immunoglobulin light chain variable
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Pred. No. 1.3e-34;
5; Mismatches 15;
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Best Local S
Matches 74
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QPRIAS;

O1-MAY-2000 (TrEMBLrel. 13,

O1-MAY-2000 (TrEMBLrel. 13,

O1-DEC-2001 (TrEMBLrel. 19,

Kappa light chain of Mab7 (
Mus musculus (Mouse)
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NON_TER
SEQUENCE
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Mammalia; Eutheria;
                                                    NCBI_TaxID=10090;
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMAXT; SM00406; IGv; 1.
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-OCT-2000
01-DEC-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 DIQWTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESGSGSGXDYSLTISNLEPEDIATYYCOOYSKEPWTEGGGTKLEIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DIQMTQSTSSLSASLGDRVXXXCSASQGISNXXXWFQQKFDGTVKLLIYYTSSLXSGVPS
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107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel. 15, Created)
(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
immunoglobulin light chain variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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; 11648 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata;
Rodentia;
                                                                                              Rodentia;
                                                                                                                     Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.5%; Score 392;
71.0%; Pred. No. 2.
cive 11; Mismatche
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70.9%;
                                                                                                                                                                                                                      , Created)
, Last sequence up
, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       response to the dominant
de, N-acetyl-glucosamine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 394; DB 4;
Pred. No. 1.5e-34;
7; Mismatches 16
                                                                                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACF9B1253ACA1E5D CRC64;
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                                                                                                                                                                                                         on update)
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SEQUENCE FROM N.A.

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RFTGSGSGTDFTLTISNVQSEDLAEYFCQQYNSYPYTFGGGTKLBIK 107

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RESULT 13
Q8VIJO
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Best Local S
Matches 73
                                                                                                                                 Matches
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Best Local 9
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SMART; SM00406; IGV; 1.
SMART; SM00410; IG like; 1.
SMART; SM00290; IG MHC; UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                   LATITUTE TO A THE LATE OF THE 
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NON TER
SEQUENCE
                                                                                                                                                                                                                                           NON_TER
                                                                                                                                                                                                                                                                              Pfam; PF00047; 1g; 1.
SMART; SM00409; IG; 1.
SMART; SM00406; IGv; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ol-MAR-2002 (TrEMBLrel. 20, Created)
Ol-MAR-2002 (TrEMBLrel. 20, Last sequence update)
Ol-JUN-2002 (TrEMBLrel. 21, Last annotation updat
Anti-DNA light chain (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003600; Ig_like.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PP00047; ig; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AF152371; AAD40242.1; -. HSSP; P01679; 2FBJ
                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=C3H/HEJ-LPR/LPR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
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antibody (Mab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=96409289;
                                                                                                                                                                                                                                                                                                                                                                        nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EDLINE=96409289; PubMed=8814271;
loch M.K., Alexander A.L., Pippe
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G.,
61 RFSGSGSGTDFTLTISSLQFEDFATYYCQQYNSYPPTFGQGTKVEIK 107
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                                                                       DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQXPEKAPKSLIYAASSLQSGVPS
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of cDNAs encoding for anti-white pine blister rust monoclonal
(Mab 7, its light and heavy chains) and construction of a
hain antibody (scFV).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESGSGSGODYSLITISSLEYEDMGIYYCLQYDEFPFTFGSGTKLEIK 107
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                                                                                                                                                                                                                                                                                                                                           IPR003599; Ig.
IPR003006; Ig_MHC.
IPR003596; Ig_v.
                                                                                                                                                                                                                      108 AA;
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                                                                                                                                 Conservative
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                                                                                                                                                                                                                    11859 MW;
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68.2%;
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                                                                                                                                                 70.0%;
68.2%;
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                                                                                                                           Score 389; DB
Pred. No. 5e-3:
L7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 391; DB
Pred. No. 7.4e
18; Mismatches
                                            VTCKASQNVGTNVAWYQQKPGQSPKALIYSASYPYSGVPH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; I
Sciurognathi; Muridae;
                                                                                                                                                                                                                    68506D75613DBFBE
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                                                                                                                                                                     Length 108;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gilkeson
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Best Local S
Matches 75
                                                                                Strausberg R.;
Submitted (CCT-2001) to the EMBL/G
EMBL; BC015292; AAH15292.1; -.
InterPro; IPR003006; Ig MHC.
InterPro; IPR001865; Ribosomal_S2.
Pfam; PF00047; 1g; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NON TER
NON TER
SEQUENCE
                                 Pfam; PF00047; 1g; 2.
PROSITE; PS00290; IG MHC; UNKNOWN 1.
PROSITE; PS00962; RIBOSOWAL_S2_1; UNKNOWN
                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
01-MAR-2002 (TrEMBLrel. 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clin. Immunol. Immunopathol. EMBL; AF035036; AAD56272.1; HSSP; P80362; 1WTL.
                                                                                                                                                                                                                                   TISSUB=COLON;
                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR003006; Ig_MAC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-2000 (TrEMBirel. 13, Created)
01-MAY-2000 (TrEMBirel. 13, Last sequence update)
01-DEC-2001 (TrEMBirel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9UL78
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Win X Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09UL78;
01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
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75; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SRFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK
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aı protein.
234 AA: 7
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109 AA;
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llarity 69.4%;
Conservative 1
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MW;
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Pred. No. 9.4e-34;
3; Mismatches 19
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Sciurognathi; Muridae;
B0D0B0E6EB7812D2
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CRC64;
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; Murinae; Mu
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Search Job ti	g .	\$ B	\$	Mato	Best
Search completed: June 3, 2003, 08:20:45 Job time : 54.3174 secs	81 RFSGSGSGTDYSLTISNLEQEDIATYFCQQYNSYPPTFGGGTKVEIK 107 81 RFSGSGSGTDYSLTISNLEQEDIATYFCQQGNTPPFFFGSGTKLEVK 127	21 DIQWIQTISSISASIGDRVITISCRASQDISNYLNWYQQKPDGTVKLLIYYTSRLYLGVPS 80	1 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS 60	Matches 75; Conservative 14; Mismatches 18; Indels 0; Gaps 0;	Query Match 68.9%; Score 383; DB 11; Length 234; Best Local Similarity 70.1%; Prod No. 5 06.33.

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Minimum DB seq length: 0
Maximum DB seq length: 200000000
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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556
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/SIDS2/gcgdata/geneseq/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
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Pred. No. is the number of results predicted by chance to I score greater than or equal to the score of the result being and is derived by analysis of the total score distribution chance to have a result being printed,

SUMMARIES

10 50	9 50	8 52	7 53	6 53	5 53	4 53	3 538	2 .54	1 55	Result No. Score
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124	109	224	224	108	107	107	107	107	107	ength I
21	18	22	22	23	23	22	22	22	22	: B
AAY56723	AAW27543	AAB75044	AAB75040	AAU76522	AAM48004	AAB82890	AAB72882	AAB72880	AAB67511	ID
Amino acid sequenc	Human Ab light cha	TRO005 HuMab kappa	TRO005 HuMab kappa	Anti-Interleukin-1	Human monoclonal a	Anti-human CD154 a	Human anti-HER2/ne	Human anti-HER2/ne	Light chain variab	Description

24-AUG-2000; 2000WO-US23356

anti-tissue	AAE12062	22	108	88.6	492.5	45	
Human MUC-1 scFv c	AAB46000	22	240	88.7	493	44	
Insulin/insulin-li	AAU90905	23	239	88.7	493	43	
Amino acid sequenc	AAY40432		117	.8	493	42	
	AAW62185	19	117	88.7	493	41	
vkappa65.15	AAW41147	18	117	8	493	40	
	AAW03949	17	117	8	493	39	
Human V-kappa vk65	AAR62931	15	117		493	. 38	
Human V-kappa frag	AAR38651	14	117	8	493	37	
Consensus humanise	AAR30764	14	109	88.7	493	36	
CEA-specific antib	AAW19895	18	108	8	493	35	
Insulin/insulin-li	AAU90948	23	241	8	494	34	
uman	AAU74297	23	236	8	494	33	
գ	AAU10768	23	126	9.	495	32	
8 synth	ABB04943	23	126		495	31	
light	AAY83645	21	126		495	30	
	AAY17492	20	126	89.0	495	29	
ensus 1	AAY08701	20	126	9	495	28	
	ABB07237	23	107	89.0	495	27	
manie	AAR30770	14	107	9	496	26	
۲. چ	AAR47041	15	109	۴	498	25	
JP11127855 Seq ID	AAY08600	20	214	9	. 499	24	
п.	AAY34317	20	164	0	501	23	
Human BLys binding	ABP45870	23	244	9	503	22	
subgroup 1	AAU74544	23	. 109		503	21	
anti-VEGF	ABP61191	23	108	•	503	20	
consensus	AAY82345	21	108	•	503	19	
	AAW70622	19	108	•	503	18	
variable	AAB61585	22	107	•	503	17	
nsus humar	AAB60400	22	107	90.5	503	16	
•	AAB62087	22	107	•	503	15	
acid	AAY56737	21	130		505	14	
germ-li	AAR40956	14	0	90.8	505	13	
5 HuMa	50	22	224	91.2	507	12	
Amino acid sequenc	AAG65571	22	107	91.2	507	11	

ALIGNMENTS

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RESULT 1
AAB67511
Complementarity determining region; CDR; immune response; antibody; cytotoxic T lymphocyte associated antigen-4; CTLA-4; B7 ligand; cancer; autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent diabetes mellitus; inflammation;
                                 01-MAR-2001.
                                                                                         Region
                                                                                                                Region
                                                                                                                                       Region
                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                      29-MAY-2001 (first entry)
                                                                                                                                                                                                                                                                                                                               AAB67511;
                                                                                                                                                                                                                                                                                                                                                    AAB67511 standard; peptide; 107 AA
                                                        WO200114424-A2.
                                                                                                                                                                                                                                                                               Light chain variable region of anti-CTLA-4 antibody 1E2.
                                                                                                                                                                                                transplant rejection; graft versus host disease.
                                                                          /note= "CDR1"
50..66
/note= "CDR2"
89..97
/note= "CDR3"
                                                                                                                                      Location/Qualifiers 24..34
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24-AUG-1999;

99US-0150452.

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RESULT 2
AAB72880
ID AAB7
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human antibody 182. This antibody specifically binds to human cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodiare used in methods for inducing, augmenting or prolonging an immur response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prost
                        29-JUL-1999; 99US-0146313.
10-MAR-2000; 2000US-0188539.
                                                                                                                                                                       08-FEB-2001
                                                                                                                                                                                                                                                                                                                                               Human; HER2;
3-F2; 1-D2; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                        Human anti-HER2/neu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel human sequence antibody that binds to human cytotoxic T
lymphocyte associated antigen-4, useful for inducing, augmenti
prolonging immune response to antigen or for suppressing immune
response in patient
                                                                                                       25-JUL-2000; 2000WO-US20272.
                                                                                                                                                                                                                              WO200109187-A2
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growth factor receptor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; HER2; neu; erbB2; oncogene; cancer; antibody; immunotherapy;
3-F2; 1-D2; 2-E8; growth factor receptor.
                                                                                                                                                                                                                                                                                                                                                                          29-JUL-1999; 99US-0146313
10-MAR-2000; 2000US-0188539
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and ovarian cancer.
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DB; AAF75586.
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98.1%;
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Pred. No. 1.7e-34;
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New human monoclonal antibody that specifically binds to growth factor receptor HER2/neu, for treating, preventing or diagnosing diseases characterized by aberrant HER2/neu expression e.g. cancers

WPI; 2001-168698/17. N-PSDB; AAF75588.

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Disclosure; Page 107; 113pp; English

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RESULT 4
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                                   14-MAR-2001; 2001WO-EP02875
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anti-human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunosuppressive; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alzheimer's disease; antiinflammatory;
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                                                                                                                                                                                                          note= "framework region
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                                                                                                                                                                                                                                                                                                                                                                                 note= "framework region 1"
                                                                                                                                                                                                                                                                                                                                                                                                label= FR1
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                                                                                                                                                                                                                                                                                                                                                        l≔ CDRJ
                                                                                                                      "framework region 4"
                                                                                                                                                              "complementarity determining region
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                                                                                                                                          FR4
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Pred. No. 4.2e-34;
1; Mismatches 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC are also claimed. The CD154 binding molecules are useful in CC inhibition of an immune response mediated by CD154-positive cell cinthibition of diseases, disorders or conditions where CD154 cell cC interactions with CD40-positive cells, in the treatment and/or CC interactions is therapeutically beneficial, prevention of the CD154:CD40 cell control of the conservation of the conservation of control of the conservation of cell conservation of antibody responses to antigens is conservation of cell, tissue or organ graft rejection, in the prevention cell disease, and also for inhibiting B cell proliferation cand differentiation, T cell responses, induction or modulation of T cor B cell tolerance or inhibition of the growth of tumour cells capressing CD154 antigen. Such conditions include autoimmune and conservation of disease, Cellac.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fusing spleen cells from mice immunised with a soluble human CD154 recombinant protein with murine PAI-O myeloma cells. The invention provides a CD154 binding molecule, in particular an antibody to human CD154, in which the VH region has the complementarity determining regions CDR1, CDR2 and CDR3 of ABI793 VH and the VL region has the CDR1, CDR2 and CDR3 of ABI793 VL. The CD154 binding molecule is especially a human antibody in which the VH and VL domains are essentially those of ABI793, with the constant parts of human heavy and light chains. DNA constructs and expression vectors are also claimed. The CD154 binding molecules are useful in inhibition of an immune reasonable of the CD154 binding molecules are useful.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV infection,
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NOVARTIS-ERFINDUNGEN VERW GES MBH
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Pred. No. 4.2e
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No. 4.2e-34;
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2, which was obtained by
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Human monoclonal antibody B11 variable light chain protein.

AAM48004

(first

entry)

AAM48004

standard,

protein; 107

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neuroprotective, antidiabetic, antinaemic, endocrine, dermatological, antithyroid, uropathic, ophthalmological and muscular activity. The antibodies or their antigen-binding fragments are useful for inhibiting growth of a dendritic cell, inducing cytolysis of a dendritic cell, cureating or preventing a dendritic cell mediated disease, detecting the presence of a dendritic cell, targeting an antigen to a dendritic cell and preventing binding of a pathogen (a virus or a bacterium) to human mannose receptor on dendritic cells. In particular, the antibodies may be used to treat, autoimmune disease, graft versus host disease, immune system or inflammatory disorders (e.g. rheumatoid arthritis), multiple system or inflammatory disorders (e.g. rheumatoid arthritis), multiple disease, diabetes mellitus, myasthenia gravis, pernicious anaemia, Addison's disease, lupus erythematosus, Reiter's syndrome and Graves disease. The present sequence is that of the human monoclonal antibody all variable light chain, useful to the invention.
                                                                                                                        Matches
                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (a) a binding affinity constant to a dendritic cell of at least about 10 to the power 7 M-1;
(b) the ability to opsonise a dendritic cell;
(c) the ability to internalise after binding to dendritic cells; or (d) the ability to activate dendritic cells.

The isolated human monoclonal antibody or its antigen binding portion may also have any of the following characteristics:
(a) mediates cytolysis of dendritic cells in the presence of human effector cells; or
                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to human monoclonal antibodies binding portions that specifically bind to dendritic more of the following characteristics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ig (b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New human monoclonal antibodies specific for dendritic cells, useful for inhibiting growth or inducing cytolysis of a dendritic cell and treating or preventing a dendritic cell mediated disease, e.g.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (b) inhibits growth of dendritic cells. The antibodies or its antigen binding portion, bin inman mannose receptor on dendritic cells. The antimumnomodulatory, antirheumatic, antirheumatic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 13; 95pp; English
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07-SEP-2000; 2000US-230739P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mannose receptor; gr
autoimmune disease;
multiple sclerosis;
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                                                                                                      Score 538; DB 23;
Pred. No. 4.2e-34;
D; Mismatches 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                             Matches
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Best Local &
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29-SEP-2000;
01-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                              (II-12) antibodies. The antibodies comprise at least one complementarity determining region (CDR) of a heavy or light chain, a heavy chain or light chain variable region, or a heavy chain or light chain constant region. The anti-II-12 antibodies are useful in methods for diagnosing or treating II-12 related conditions, e.g. psoriasis or multiple sclerosis. The antibodies are also useful for treating immune, cardiovascular, infectious, malignant or neurological disorders or diseases. The present sequence represents the amino acid sequence of human anti-Interleukin-12 (II-12) antibody variable region #2.
                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 93-94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New mammalian anti-IL-12 antibodies, useful for diagnosing or treating IL-12 related conditions, e.g. psoriasis or multiple sclerosis, as well as other for treating immune, infectious, malignant or neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-257482/30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Giles-Komar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complementarity determining region; neuroprotective; antitipsoriatic; immunostimulant; cytostatic; anti-microbial; psoriasis; infection; multiple sclerosis; immune disorder; cardiovascular; malignant diseas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to novel isolated mammalian anti-interleukin-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anti-Interleukin-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU76522;
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                                                                                                                                                                                                                                                 Similarity
RESGSGSGTDETLITISSLQPEDFATYYCQQYNIYPYTEGQGTKLEIK
                                                     RESGSGSGTDETLTISSLOPEDFATYYCOOYNSYPPTEGOGTKVEIK 107
                                                                                                                                                         DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                      DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DIOMTOSPSSLSASVGDRVTITCRASQGISRWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                                                                                                                                                                                                                                                                                                                                108 AA;
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                                                                                                                                                                                                                          Conservative
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; 2000US-236827P.
; 2001US-0920262.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   anti-interleukin-12; CDR; heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (IL-12)
                                                                                                                                                                                                                                              96.6%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96pp; English
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                                                                                                                                                                                                                                              Score 537; DB 2
Pred. No. 5e-34;
                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                          DB 23;
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                                                                                                                                                                                                                                                                       Length 108;
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                                                                                                         60
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RESULT 8
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AAB75040
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                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes a method (M1) for producing a human cantibody phage display library (I), comprising: (1) providing a nonhuman transgenic animal (II) whose genome comprises human immunoglobulin genes; (2) isolating nucleic acids encoding human antibody chains (III) from I lymphatic cells; and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display library, e.g., a Fab phage display library. The display method may be used to screen nucleic acids encoding antibody chains obtained from 1 imburised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies display library using this method means there is no need to immunise human with antigens, and the difficulties faced with immortalising B cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75056
                                                                                                                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                                                                                                                                                             Matches 103;
                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Producing a human antibody phage display library comprises providing a transgenic animal whose genome comprises human immunoglobulin genes and isolating nucleic acids encoding antibody chains from lymphatic cells -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 37; Page 121-122; 161pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Buechler J, Valkirs
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01-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; antibody;
human antibody pl
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                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                      DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                                               RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVBIK 107
                                                                                                                                                                                          NIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
                                                                                                          RESGSGSGTDETLTISSLOPEDFATYYCOOYNSYPETEGPGTKVDIK 107
                                                                                                                                                                                                                                                                                                                                                                                  224 AA;
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99US-0453234.
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                                                                                                                                                                                                                                                                                                             95.5%;
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                                                                                                                                                                                                                                                                                        2;
                                                                                                                                                                                                                                                                                      Score 531; DB 22;
Pred. No. 2.9e-33;
2; Mismatches 2;
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AAB75044 standard; Protein; 224

22-JAN-1998

(first entry)

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RESULT 9
AAW27543
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Best Local Sim
Matches 101;
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                                                          AAW27543 standard;
                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Producing a human antibody phage display library comprises providing transgenic animal whose genome comprises human immunoglobulin genes a isolating nucleic acids encoding antibody chains from lymphatic cells
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01-DEC-1999;
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Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 37; Page 121-122; 161pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; antibody; immunoglobulin; interleukin 8; IL8; immunogen; human antibody phage display library; immunisation; transgenic
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                                                                                                                                                                  61 RFSGSGSGTDFTLTISSLOPEDFATYYCOQYNSYPPTFGQGTKVEIK 107
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                                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                      sequences
                                                                                                                                                                                                                                                                                                                        224 AA;
                                                                                                                                                                                                                                                             Conservative
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99US-0453234.
                                                          Protein;
                                                                                                                                                                                                                                                                                                                                                       used
                                                                                                                                                                                                                                                                             94.8%;
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                                                                                                                                                                                                                                                           4.
                                                                                                                                                                                                                                                           Score 527; DB 22;
Pred. No. 5.8e-33;
4; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is the human antibody light chain variable region synthetic kappa sequence V-kappa-1, used preparation of a human derived antibody gene library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Preparation of human derived antibody gene library - usiconsensus sequences, and signal consensus antibody gene framework for highly diverse antibody libraries
                                                                                                                                                         Complementarity Old World ape; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB;
       (SMIK ) SMITHKLINE BEECHAM CORP
                                                                                   04-NOV-1999.
                                                                                                          W09955369-A1
                                                                                                                                  Pan troglodytes
                                                                                                                                                                                                                                               AAY56723;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ge L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; antibody; preparation; library; V-kappa-1; variable region; light chain; consensus.
                                 28-APR-1998;
                                                          28-APR-1999;
                                                                                                                                                                                            Amino acid sequence of chimpanzee Vkappa cDNA clone 46-11.
                                                                                                                                                                                                                       15-FEB-2000
                                                                                                                                                                                                                                                                     AAY56723 standard; protein; 124 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MORP-) MORPHOSYS GES PROTEINOPTIMIERUNG MBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-AUG-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-MAR-1997.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Ab light chain variable region V-kappa-1 consensus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                      100;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT87938.
                                                                                                                                                                                                                                                                                                                                                                                                        DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQXPEKAPXSLIYAASSLQSGVPS 60
                                                                                                                                                                                                                                                                                                                                               RPSGSGSGTDPTLTISSLQPEDFATTYCCQCYNSYPPTFGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                  DIQMTQSPSSLSASVGDRVTITCRASQGISSYLAWYQQXPGKAPKLLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                                                                                   RESGSGSGTDETLTISSLOPEDEATYYCOOHYTTPPTEGOGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                      (first
                                                                                                                                                     y determining region; antibody; primate; immunogenicity;
Old World monkey; antigen-binding affinity.
                                 98US-0083367.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3A; 436pp; English.
                                                          99WO-US09131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95EP-0113021.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96WO-EP03647.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Knappik A,
                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                               91.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Moroney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 509; DB 18;
Pred. No. 6.9e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pack P,
                                                                                                                                                                                                                                                                                                                                                                                                                                   4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 109;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
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universal
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RESULT 11
AAG65571
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local (
                                Producing gene libraries and antibody libraries, light chain that binds to a heavy chain product t formation, and producing a gene library of the li regions -
                                                                                                                                  Kurosawa Y, Akahori
Okuno Y, Shiraki K;
                                                                                                                                                                                                                                                                                                                                                                             30-NOV-2001
                                                                                                                                                                                               22-FEB-2000; 2000JP-0050543.
                                                                                                                                                                                                                       22-FEB-2001; 2001WO-JP01298
                                                                                                                                                                                                                                                 30-AUG-2001
                                                                                                                                                                                                                                                                         WO200162907-A1.
                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                         Gene library;
                                                                                                                                                                                                                                                                                                                                                  Amino acid sequence of protein seq Id No.
                                                                                                                                                                                                                                                                                                                                                                                                                            AAG65571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       processes and selections of the close similarity between the human and primate proteins), but retain the full antigen-binding affinity of the donor antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention provides an antibody (Ab) comprising donor CDRs (complementarity determining regions) derived from a non-human antigenspecific donor antibody, and an acceptor framework from a non-human primate. The Abs are prepared by grafting CDRs from a non-human antigenspecific donor antibody onto homologous Old World age or monkey acceptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antibodies containing donor complementarity determining regions and non-human primate acceptor frameworks, having reduced immunogenicity in
                                                                                                                                                                       (MEDI-) MEDICAL & BIOLOGICAL LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 2; Page 66; 123pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Taylor
                                                                                               2001-565420/63.
DB; AAH47735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000-023265/02.
DB; AAZ39326.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RFSGSGSGTEFTLTISSLQPDDFATYYCQQYSSYPRTFGQGTKLEIK 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DIQMTQSPSTLSASVGDRVTITCRASQGISSWLAWYQQKPGKAPKLLIYKASSLESGVPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DIOMTOSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS 60
                                                                                                                                                                                                                                                                                                                                                                                                                           standard; protein; 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                         immunoglobulin;
                                                                                                                                                                                                                                                                                                                                                                           entry)
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90.7%;
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Pred. No. 9.3e-32;
                                                                                                                                                                                                                                                                                                                         antibody library;
                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                              Morino
                                                                                                                                                                        CO LTD.
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                                                                                                                                                                                                                                                                                                                                                   96
                                                                                                                                               Shinohara
                                                                                                                                                                                                                                                                                                                          human.
                                            involves selecting a
to produce a functional
ight chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 124;
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                                                                                                                                               Takahashi
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Examples;

p 172; 181pp; Japanese

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RESULT 12
AAB75043
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Best Local (
The present invention describes a method (M1) for producing a human antibody phage display library (I), comprising: (1) providing a nonhuma transgenic animal (II) whose genome comprises human immunoglobulin gene (2) isolating nucleic acids encoding human antibody chains (III) from lymphatic cells; and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display be used to screen nucleic acids encoding antibody chains obtained from immunised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies display the package in the package of the package of the package of the package of the package of the package.
                                                                                                                                                                                                                                                                                                                                                                          Producing a human antibody phage display library comprises providing a transgenic animal whose genome comprises human immunoglobulin genes and isolating nucleic acids encoding antibody chains from lymphatic cells -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; antibody; immunoglobus human antibody phage display
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to producing gene libraries, comprising immunoglobulin light and heavy variable region. The method involves selecting light chain that binds with the heavy chain product to produce a functional conformation, producing a gene library comprising a collection of these light chain variable genes, and combining with gene library of heavy chain variable genes. The method is used for production of gene and antibody libraries.
                                                                                                                                                                                                                                                                                                                            Example 37; Page 121-122; 161pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-335567/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Buechler J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-OCT-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-OCT-2000; 2000WO-US27237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRO005 HuMab kappa chain protein sequence 3E8K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB75043 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BIOS-) BIOSITE DIAGNOSTICS INC. (GENP-) GENPHARM INT SUBSIDIARY OF MEDAREX INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RFSGSGSGTDFTLTISSLQPEDFATYYCQQANNFPLTFGGGTKVEIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVBIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DIQMIQSPSSVSASVGDRVIITCRASQGISSWLAWYQQKPGKAPKLLIYAASSLQSGVPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0157415.
99US-0453234.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunoglobulin; interleukin 8;
hage display library; immunisat;
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92.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gray J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 507; DB 22;
Pred. No. 9.7e-32;
3; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lonberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; 8.II
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; immunogen;
                                                                                                                                                                                                                providing a nonhuman
immunoglobulin genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                New altered antibodies with reduced immune responses - have germ-line aminoacid residues replacing somatically mutated
                                                WPI; 1993-288411/36
                                                                    Carr FJ,
                                                                                                          19-FEB-1992;
                                                                                                                                                 02-SEP-1993
                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                              Key
Region
          residues
                                                                                                                                                                     WO9317105-A.
                                                                                                                                                                                                                                                             Region
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                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         humans with antigens, and the difficulties faced with immortalising B cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75056 represent sequences used in the exemplification of the present invention.
                                                                                                                             19-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                complementarity
                                                                                                                                                                                                                                                                                                                                                                                                                        humanised antibody; human germ-line; light chain; variable framework region; reshaped antibody; CDR-grafted antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human germ-line
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR40956 standard; protein; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                   Harris WJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224 AA;
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                                                                                                          92GB-0003459
                                                                                                                             93WO-GB00363
                                                                                                                                                                                                                                                                                                                                                                                                              determining region;
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/label= FR2
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Pred. No. 1.9e-31;
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specific primate.
                                                                                                    Antibodies containing donor non-human primate acceptor f
                                                                                                                                     WPI; 2000-023265/02
N-PSDB; AAZ39340.
                                               The invention provides
                                                                      Example 4;
                                                                                                                                                                     Taylor AH
                                                                                                                                                                                           (SMIK ) SMITHKLINE BEECHAM CORP
                                       (complementarity
ntion provides an antibody (Ab) comprising donor CDRs entarity determining regions) derived from a non-human antigendonor antibody, and an acceptor framework from a non-human The Abs are prepared by grafting CDRs from a non-human antigen donor antibody onto homologous Old World ape or monkey accepto
                                                                    Page
                                                                    96-97;
                                                                   123քք;
                                                                                                    frameworks, havin
                                                                   English
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antigen-

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myeloma proteins, respectively. The tramework regions to the CDR-grafted antibody were converted to the germ-line equivalent. For conversion of the K-chain, the germ-line light chain VK137 (AAR40956) was used. Germ-line framework regions are those present in immature B cells, i.e. prior to any somatic mutation which takes place during maturation. Unlike mutations in the CDRs, any mutation in framework regions does not affect affinity for an antigen and is therefore essentially random. The mutation may, however, cause the "self" antibody to be recognised as "foreign" and conversion to the unmutated germ-line sequence renders the framework regions "immuno
                                                                                                                                                                                                                                                                                       04-NOV-1999.
                                                                                                                                                                                                                                                                                                                                        Macaca cynomolgus
                                                                                                                                                                                                                                                                                                                                                               Complementarity Old World ape; (
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                                                                                                                                                                                                                                                                                                                                                                                                  Amino acid sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY56737 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A humanised antibody comprised CDRs originally from a mon
RSV19 specific for Respiratory Syncyvial Virus transplant
heavy and light chain V region domains derived from NEWM
myeloma proteins, respectively. The framework regions of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 3; Fig
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                                                                                                                                                                                                                                                                                                                                                                        determining region; antibody;
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No. 1.4e-31;
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Matches Query Match Best Local

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in humans (proteins),
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                                                                                                                                                 Similarity
                RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK
                                                                                 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
RFSGSGSGTEFTLTISSLQPEDFATYYCQQYNTYPLTFGGGTKVEIK 129
                                                            DIQMTQSPSSLSASVGDRVTITCQASQGISNWLAWYQQKPGKAPKLLIYAASTFQSGVPS
                                                                                                                                                                                                                                                              (because
                                                                                                                                                                                                                                                (because of the but retain the
                                                                                                                                                                                                 130
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                                                                                                                                Conservative
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                                                                                                                                                90.8%;
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No. 1.7e-31;
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Homo sapiens. ErbB2 receptor; anti-ErbB2 antibody; 29-MAY-2001 AAB62087 standard; consensus cytostatic; (first protein; framework humkappal. entry) carcinoma. 107 ₹ tumour; cancer; breast cancer;

27-AUG-1999; 99US-0151018. 23-JUN-2000; 2000US-0213822. 25-AUG-2000; 2000WO-US23391 WO200115730-A1

Treating a human patient with overexpression of ErbB2 recept metastatic breast carcinoma) of Baughman SA, (GETH) GENENTECH INC 2001-235058/24. Shak S; receptor such as a tumor or cance comprises

cancer, gastrointestinal cancer, glioblastoma, cervical cancer, ovarian cancer, liver cancer, bladder cancer, hepatoma, colon cancer, colorectal cancer, endometrial carcinoma, salivary gland carcinoma, kidney cancer, liver cancer, prostate cancer, vulval cancer, thyroid cancer, hepatic carcinoma and various types of head and neck cancer. The present sequence tumour, or a cancer. The cancer is selected from breast cancer (particularly metastatic breast carcinoma), leukemia, squamous cell cancer, small-cell lung cancer, non-small cell lung cancer, pancrea diagnosed with a disorder characterized by overexpression of ErbB2 receptor. The method comprises administering an initial dose of at least approx.5 mg/kg of the anti-ErbB2 antibody, and administering subsequent doses of the antibody in approximately the same amount or less than the initial dose. The method is useful for treating a disorder characterized by overexpression of ErbB2 receptor, particularly a benign or malignant The invention Disclosure; Fig 5A; 71pp; English relates to treating cancer in h a disorder characterized by antibody administering 11 a human susceptible cancer (e.g. pancreatic œ,

colorectal

sequence

Search completed: June 3, 2003, 08:14:45 Job time : 50.2048 secs
Qy 61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
OY 1 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS 60
Query Match 90.5%; Score 503; DB 22; Length 107; Best Local Similarity 92.5%; Pred. No. 2e-31; Matches 99; Conservative 3; Mismatches 5; Indels 0; Gaps 0;
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cgn2_6/ptodata/1/pubpaa
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Copyright (c) 1993 - 2003 Compugen Ltd.
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cgn2_6/ptodata/1/pubpaa/US09 NEW PUB.pep:*
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US-10-268-501-5
US-09-880-748-1881
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US-09-798-058-4
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Sequence 26, Appli
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Sequence 4, Appli
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ALIGNMENTS

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CURRENT FILING DATE: 2001-11-07
PRIOR APPLICATION NUMBER: 09/851,614
PRIOR FILING DATE: 2001-03-08
PRIOR APPLICATION NUMBER: USSN 60/203,126
PRIOR FILING DATE: 2000-05-08
PRIOR FILING DATE: 2000-05-09
PRIOR APPLICATION NUMBER: USSN 60/230,739
PRIOR FILING DATE: 2000-09-07
                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 2
                                                                                                                                                                 Matches
                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Application US/10035637 Publication No. US20030031667A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 9
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES TO DENDRITIC TITLE OF INVENTION: CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Deo, Yashwant
APPLICANT: Keler, Tibor
                                                                                                                                                                                                                                                                                                               ENGTH: 107
                                                                                                                                                               Local Similarity 97.2
  61
                                        13
                            RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                       DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
RFSGSGSGTDFTLTISGLQPEDFATYYCQQYNSYPRTFGQGTKVEIK 107
                                                                               DIOMTOSPSSLSASVGDRVTITCRASOGISRWLAWYOOKPEKAPKSLIYAASSLOSGVPS 60
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                                                                                                                                                                                  96.8%;
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                                                                                                                                                               Score 538; DB 9;
Pred. No. 4.5e-32;
0; Mismatches 3
                                                                                                                                                                 3; Indels
                                                                                                                                                                                                      Length 107;
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RESULT 2 US-10-125-687-8 ; Sequence 8, Application US/10125687

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                                                                                                                                                         RESULT 4
US-10-268-501-5
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US-10-025-687-8
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US-10-025-687-8
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US-10-125-687-8
                                                                                              Sequence 5, Application US/10268501 Publication No. US20030086924A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                Matches 100;
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Best Local Similarity
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Patent No. US20020142255A1
GENERAL INFORMATION:
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SOFTWARE: PatentIn versi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Luc, Peter
TITLE OF INVENTION: STRUCTURE-BASED CONSTRUCTION OF HUMAN ANTIBODY LIBRARY
FILE REFERENCE: 26050-705
    CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/025,687
CURRENT FILING DATE: 2002-04-17
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CURRENT APPLICATION NUMBER: US/10/125,687
CURRENT FILING DATE: 2002-04-17
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TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE:
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                                      PPLICANT: Sliwkowski, Mark X.
ITLE OF INVENTION: Treatment with Anti-ErbB2 Antibodies
ILE REFERENCE: P1467R2P1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
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TYPE: PRT
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TLB OF INVENTION: STRUCTURE-BASED CONSTRUCTION OF HUMAN ANTIBODY LIBRARY
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APPLICATION NUMBER: US/10/268,501
FILING DATE: 2002-10-10
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93.5%;
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Pred. No. 5.4e-30;
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Pred. No. 5.4e-30;
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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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SEQ ID NO 5
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Best Local Similarity
                                                                                                                                         TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 12:
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                                                                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Chen, Yvonne M.
TITLE OF INVENTION: ANTI-VEGF ANTIBODIES
NUMBER OF SEQUENCES: 131
                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: P1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                             FILING DATE: 06-AUG-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: WinPatin (Ge
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                       TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: 3.5 inch, 1.44 Mb
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                          LENGTH:
                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                   NAME: Hasak, Janet E. REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 06-Ap
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                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
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US20020032315A1
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                                                                                                        108 amino acids
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Pred. No. 1.4e-29;
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90.5%;

Score 503; DB 10; Pred. No. 1.4e-29;

Length 108

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US-09-880-748-1881
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LENGTH: 109
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                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
PRIOR FILING DATE: 2000-10-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                                                                            URRENT APPLICATION NUMBER: US/09/880,748
URRENT FILING DATE: 2001-06-15
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PPLICANT: Ralph Schwall
PPLICANT: Mark Sliwkowski
                                                                                                                                                                                                                                                                                                                               PPLICANT: Ruben et al.

ITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
                                                                                                                                                                                                                                                                                                            LE REFERENCE: PF523
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                        APPLICATION NUMBER: 60/276,248 FILING DATE: 2001-03-16 APPLICATION NUMBER: 60/277,379 FILING DATE: 2001-03-21
                                 APPLICATION NUMBER: 60/293,499 FILING DATE: 2001-05-25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90.5%; Score 503; DB 10; 92.5%; Pred. No. 1.5e-29;
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 Mismatches

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                                                                                                                                                                                                                                                                                                         RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 30
                                                                                                                                                                                                                                 Sequence 4, Application US/09798058 Patent No. US20020098523A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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LENGTH: 244
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CURRENT APPLICATION NUMBER: US/09/798,058
CURRENT FILING DATE: 2001-08-29
PRIOR APPLICATION NUMBER: US 60/187,246
                                                                   TITLE OF INVENTION: Human antibodies against eotaxin and their use FILE REFERENCE: 84632\text{-}000100
                                                                                                                APPLICANT: Vaughan, Tristan John
APPLICANT: Wilton, Alison Jane
APPLICANT: Smith, Stephen
APPLICANT: Main, Sarah Helen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/859,053
CURRENT FILING DATE: 2001-05-16
PRIOR APPLICATION NUMBER: JP 2001-99508
PRIOR FILING DATE: 2001-03-30
PRIOR APPLICATION NUMBER: JP 2000-147116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 236
TYPE: PRT
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ORGANISM: Homo sapiens
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ITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODY AGAINST
ITLE OF INVENTION: COSTIMULATORY SIGNAL TRANSDUCTION
ITLE OF INVENTION: PHARMACEUTICAL USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE: 06501-079001
                                                                                                                                                                                                                INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137 DIVMTQSPSTLSASVGDRVTITCRASQGISSWLAWYQQKPGKAPKLLIYAASSLQSGVPS 196
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2000-05-18
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Pred. No. 1.3e-28;
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Pred. No. 3e-29;
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Sequence 62, Appl
Publication No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 62
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Best Local Similarity
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PRIOR FILING DATE: 2001-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/194,975
CURRENT FILING DATE: 2002-10-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TLE OF INVENTION: Super Humanized Antibodies
                                                                                                                                                                                                                        lence 1, Application US/09801185;
lication No. US20030092059A1
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          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                       APPLICANT: BASF Aktiengesellschaft
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                                                            COUNTRY: USA
                                                                         STATE: Massachusetts
                                                                                                             STREET:
                                                                                                                        DDRESSEB:
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No. US20030039649A1
                                                                                                                                                          OF SEQUENCES:
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                                                                                                                                                                 INVENTION: Human Antibodies that Bind Human TNFalpha
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                                                                                                                                                                                                                                                                                                                   STDFTLTISSLQPEDFATYYCQQYNSYP 95
                                                                                                        28 State Street
IBM PC
                                                                                                                          LAHIVE & COCKFIELD
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Pred. No. 1.5e-28;
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Pred. No. 1.1e-28;
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Best Local Similarity
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                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               UMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 RFSGSGSGTDFTLTISSLQFEDFATYYCQQYNSYFPTFGQGTKVEIK 107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LE OF INVENTION: Human Antibodies that Bind Human TNFalpha
                                                         APPLICATION NUMBER: US 08/599,226
FILING DATE: 09-FEB-1996
APPLICATION NUMBER: US 60/031,476
                                                                                                                                  APPLICATION NUMBER: US/09/801,185A
FILING DATE: 07-Mar-2001
CLASSIFICATION: «UNKNOWN»
APPLICATION DATA:
                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09801185A
APPLICATION NUMBER: US 09/125,098 FILING DATE: 07-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RFSGSGSGTDFTLTISSLOPEDVATYYCORYNRAPYTFGQGTKVBIK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DIOMTOSPSSISASVGDRVTITCRASQGIRNYLAWYQQKPGKAPKLLIYAASTI
                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                 STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Boston
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REGISTRATION NUMBER: 31,503
REFERENCE/DOCKET NUMBER: BBI-043CPUSCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 09/125,098 FILING DATE: 07-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/599,226 FILING DATE: 09-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.25
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89.7%;
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Pred. No. 1.7e-28;
4; Mismatches 7
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JS-09-801-185A-9
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Best Local Similarity
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                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                         SEQ ID NO 2
                                                                                                                                                                                                           LENGTH: 240
TYPE: PRT
ORGANISM: Homo sapiens
-09-968-561A-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JCANT: Winter, Gregory
JE OF INVENTION: Method to Screen Phage Display Libraries with Different Ligands
REFERENCE: 8039/1073B
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 09/511,939 FILING DATE: 2000-02-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 60/065,248
FILING DATE: 1997-11-13
APPLICATION NUMBER: US 60/066,729
FILING DATE: 1997-11-21
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                                                                                                                                                                                                                                                                                                                                                                                                                                    PPLICATION NUMBER: PCT/GB98/03135
61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                                                 98;
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                                                                                    1 DIOMTOSPSSISASVGDRVTITCRASOGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS 60
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                                            DIQMTQSPSSLSASVGDRVTITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVPS 192
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REFERENCE/DOCKET NUMBER: BBI-043CPUSCN
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    Mismatches

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Pred. No. 4.1e-28;
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Pred. No. 2e-28;
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                                                                                                                                                                                                                                                                                        NUMBER PALES
SOFTWARE: PALES
; SEQ ID NO 82
'FNGTH: 244
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                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
-09-880-748-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: PF523
CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/293,499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/192,854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TILE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPLICANT: Winter, Greg
PPLICANT: Tomlinson, Ian
ITLE OF INVENTION: Methods for Selecting Functional Peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARLIER APPLICATION NUMBER: 60/066,729
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ID NO 2
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                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/276,248
197 RFSGSGSGTDFTLTISSLQPEDVATYYCQKYNSAPYAFGQGTKVEIK 243
                                                                              137
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                                       RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
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Pred. No. 4.2e-28;
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Pred. No. 4.1e-28;
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Search completed: June 3, 2003, 08:52:52 Job time: 26.3805 secs

GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd.

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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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seq length: 2000000000
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              US-08-974-899-3

US-09-042-353-48

US-09-157-317A-313

US-09-157-370-3

US-08-974-899-2

US-08-599-226-1

US-08-599-226-9

US-08-125-098-9

US-08-125-098-9

US-08-652-816A-5

US-08-652-131-185

US-08-08-61762-185

US-08-0812-586-45
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US-08-437-642B-3
US-08-146-206C-3
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PCT-US93-07832-18
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ALIGNMENTS

US-09-025-769B-28

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STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-025-769B-28
Query Match
Best Local Similarity
Matches 100; Conserv
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                                                                                                                                                                                                          INFORMATION FOR SEQ
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                                                                                                                                                                                                                                                            NAME: James F. Haley, Jr., |
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: MO)
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/025,769B
FILING DATA: 18-FEB-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 95 11 3021.0
FILING DATE: 18-AUG-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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APPLICANT: Moroney, Simon
APPLICANT: Plueckthun, Andreas
TITLE OF INVENTION: Protein/(Poly)peptide libraries
NUMBER OF SEQUENCES: 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: New York
                                                                                                                                                                      LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10021
                                                                                                                                                amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New York
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                                                                                                                                                                                                                          (212)596-9090
                                                                                                                                                                                                                                             (212)596-9000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peter
                   91.5%;
                                                                                                                                                                                                                                                                                  MORPHO/5
                   Score 509; DB 4
Pred. No. 4e-41;
                                                                                                                                                                                                                                                                                                                 Esq.
                                  DB 4; Length 109;
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Conservative

Mismatches

Indels

<u>,</u>

Gaps

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US-07-934-373C-3
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                                                                RESULT 3
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            Sequence 3, Application US/07934373C Patent No. 5821337
                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/025.7699
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 109 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (212)596-9000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                  Local Similarity
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JAME: James F. Haley, Jr., I
REGISTRATION NUMBER: 27,794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
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ER OF SEQUENCES: 373
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                                                                                                                            RFSGSGSGTDFTLTISSLOPEDFATYYCOOYNSYPPTFGOGTKVEIK 107
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                                                                                                                                                                                                                                                                                                                                                                    : 109 amino acids
amino acid
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1251 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09025769B
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Plueckthun, Andreas
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                                                                                                                                                                                                                                                             Score 509; DB 4; Length 109; Pred. No. 4e-41;
                                                                                                                                                                                                                                                Mismatches
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COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk

COMPUTER: IBM PC compatible
                                                                     COUNTRY:
                                                                                                                                     ADDRESSEE:
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94080

South San Francisco

1 DNA Way

Genentech, Inc.

California

USA

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US-08-437-642B-3
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                                                                                                                     Patent No. 605429
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Best Local Similarity
                                                                                                  SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 109 amino acid
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APPLICANT: Paul J. Carter
APPLICANT: Leonard G. Presta
TITLE OF INVENTION: Immunoglobulin Variants
NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
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PRIOR APPLICATION DATA:
07/715272
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PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-1994
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: Amino Acid
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FILING DATE: 15-JUN-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/07/934,373C FILING DATE: 21-Aug-1992
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                                                                                                                                                                                                                                                               61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
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                                                                                                                                      Application US/08437642B
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Pred. No. 9.5e-41;
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APPLICATION NUMBER: US/08/437,642B

09-May-1995

APPLICATION DATA:

PC-DOS/MS-DOS n (Genentech)

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Query Match
Best Local Similarity
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: South San Francisco
STATE: California
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TORNEY/AGENT INFORMATION:
APPLICATION NUMBER: US/08/146,206C FILING DATE: 17-No. 6407213-1993
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REFERENCE/DOCKET NUMBER: PO
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FILING DATE: 15-JUN-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPLICATION NUMBER:
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R APPLICATION DATA:
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                                 ARE: WinPatin (Genentech)
APPLICATION DATA:
                                                                                                                                                         94080
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DATE: 21-AUG-1992
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                                                                                                                                                                                                                                                                    ENCE ADDRESS
                                                                                                                                                                                                                                                                                                    Presta, Leonard G.
VENTION: Method for Making Humanized Antibodies
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92.5%;
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Pred. No. 9.5e-41;
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US-08-146-206C-3
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Best Local Similarity
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                        FILING DATE: 14-JUN-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/05126
FILING DATE: 15-JUN-1992
                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US9
FILING DATE: 19930820
                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: Genentech, Inc.
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OPERATING SYSTEM:
                                                        TELEFAX:
                                                                                                              REGISTRATION NUMBER: REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                        APPLICATION NUMBER: 07/934373 FILING DATE: 21-AUG-1992
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South San Francisco
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                                                            415/952-9881
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25 inch,
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Pred. No. 9.5e-41;
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RESULT 8
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Best Local
                                                                                                                                                                                                                                                                               TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
LENGTH: 107 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/1
PILING DATE: 15-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PILLING COLOR STATE CLASSIFICATION: 530
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: PCT/US92/05126
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                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 14-JUN-1991
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: 3.5 inc
                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 40,378
                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 21-Aug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: 3.5 inch, 1.44 Mb
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ICANT: Leonard G.
E OF INVENTION: II
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                                                                  RFSGSGSGTDFTLTISSLQFEDFATYYCQQYNSYFFTFGQGTKVEIK 107
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South San Francisco
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                                    RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSLPWTFGQGTKVBIK 107
                                                                                                                                                                                                                                                                                                                                                                                                             Lee, Wendy M.
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                                                                                                                                                                                                                                                                               107 amino acids
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Pred. No. 9.5e-41;
                                                                                                                                                                  Mismatches
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US-08-146-206C-18

Sequence 18,

в, Application US/08146206C 6407213

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GENERAL INFORMATION

Carter, Paul J.
Presta, Leonard G.
VENTION: Method for Making Humanized Antibodies

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RESULT 9
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                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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MEDIUM TYPE: 3.5 inc
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                                                                                                                                                                      Local
                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                      TELEPHONE:
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REFERENCE/DOCKET NUMBER: PO
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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                                                               61 RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYPPTFGQGTKVEIK 107
                                                                                                                         1 DIOMTOSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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14-JUN-1991
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                                                                                          JSASVGDRVTÍTCRÁSQSÍSNYLAWYQQKÞGKAPKLLÍYAASSLESGVPS
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                                                                                                                                                  Score 503; DB 3; Lei
Pred. No. 1.4e-40;

 Mismatches

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                                                                                                                                                                                 Length 107;
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                                                                                                                                                  Gaps
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Genentech, Inc

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RESULT 10
PCT-US93-07832-18
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                               quence 18, Application PC/TUS9307832
ENERAL INFORMATION:
                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION UNMBER: PCT/US93/07832
FILING DATE: 19930820
CLASSIFICATION:
                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/7
FILING DATE: 14-JUN-1991
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/715272 FILING DATE: 14-JUN-1991 ATTORNEY/AGENT INFORMATION:
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REFERENCE/DOCKET NUMBER: P0709P1
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STREET: 1
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FILING DATE: 17-No. 6407213-1993
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                   PPLICATION DATA:
                                                                                                                                                                                                                                     94080
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F: 460 Point San Bruno Blvd
South San Francisco
: California
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Amino Acid
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                                             07/715272
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PCT/US92/05126
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Pred. No. 1.4e-40;
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US-08-974-899-3
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                                         ENGTH:
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PCT-US93-07832-18
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Matches 99; Conservative
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Patent No. 6037454
                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:

APPLICATION NUMBER: 60/031971

FILING DATE: 11/27/96

ATTORNEY_AGENT INFORMATION:

NAME: Lee, Wendy M.

REGISTRATION NUMBER: 40,378

REGISTRATION NUMBER: 40,378
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 107 amino acid
                                                                            TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-1994
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APPLICATION NUMBER: US
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TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
FILING DATE: 21-AUG-
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TELEX: 910/371-7168
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f: 108 amino acids
Amino Acid
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1 DNA Way
outh San Francisco
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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Pred. No. 1.4e-40;
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RESULT 12
US-09-042-353-48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Lonberg, Nils
APPLICANT: Kay, Robert M.
TITLE OF INVENTION: Trans
TITLE OF INVENTION: Produ
                                                                                                                                           PILING DATE: 18-NOV-1333
PRIOR APPLICATION DATA:
US 08/161,739
                                                                         FILING DATE: 10-DEC-
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 07/810,279
FILING DATE: 17-DEC-1991
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IRM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                       PRIOR APPLICATION DATA:
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o. 6255458
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                                                                                                                                                                                                                                                                                                                                      DATE:
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Two Embarcadero
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                                            09-MAR-1994
                                                                                           10-DEC-1993
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22-JUL-1993
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16-DEC-1992
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MBER: US 08/352,322
07-DEC-1994
                                                                                                                                        03-DEC-1993
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26-APR-1993
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                                                          US 08/209,741
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Center, Eighth Floor
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Pred. No. 1.4e-40;
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RESULT 13
US-08-758-417A-313
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 02-DEC-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 01-DEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Apple, Randolph T. REGISTRATION NUMBER: 36,429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 10-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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                                                                                                                                 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC COMPDATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                           Kay, Robert M.
TITLE OF INVENTION: Transgenic No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Lonberg, Nils
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23 DIQMTQSPSSLSASVGDRVTITCRASQGISSWLAWYQQKPEKAPKSLIYAASSLQSGVPS
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                    APPLICATION NUMBER: US 08/728,463 FILING DATE: 10-OCT-1996
                                                                        APPLICATION NUMBER: US/08/758,417A FILING DATE: 02-Dec-1996 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                           STATE: California
                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYP 95
                                                                                                                                                                                                                                                     ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                              CITY: San Francisco
APPLICATION NUMBER: US 08/544,404
                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Townsend and Townsend and Crew LLF
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/08758417A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            117 amino acids
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02-DEC-1996
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                                                                                                                                                                                                                                                                                                                                                                                                           Transgenic No. 6300129-Human Animals Producing Heterologous Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  48:
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Pred. No. 1.4e-39;
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APPLICATION NUMBER: US 08/352,322 FILING DATE: 07-DEC-1994

PLICATION NUMBER: US 08/209,741 LING DATE: 09-MAR-1994

CATION NUMBER: US 08/165,699

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Query Match
Best Local Similarity
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                                                                                                                     SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-157-370-3
                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/157,370A
CURRENT FILING DATE: 1998-09-21
EARLIER APPLICATION NUMBER: 08/765,179
                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 10
                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: STBIPE, Boris
APPLICANT: STEINBACHER, Stefan
FITLE OF INVENTION: PROCESS FOR MODIFYING THE STABILITY OF ANTIBODIES
                                                                                                                                                               OFTWARE: PatentIn Ver.
                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    quence 3, Application US/09157370A
tent No. 6262238
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                                                                                                                                                                                                       ARLIER APPLICATION NUMBER: DE/P44 25 115.7
ARLIER FILING DATE: 1994-07-15
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LENGTH: 117 amino acids
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                                                                                                                                                                                                                                            FILING DATE: 1997-01-14
APPLICATION NUMBER: PCT/EP95/02626
FILING DATE: 1995-07-06
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RFSGSGSGTDFTLTISSLQPEDFATYYCQQYNSYP 117
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REFERENCE/DOCKET NUMBER: 014643-009030US
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ING DATE: 03-DEC-1993
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100.0%; Pre
  88.1%;
90.7%;
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  Score 490; DB 4;
Pred. No. 2.4e-39;
                  Length 109;
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Search completed: June 3, 2003, 08:24:16
Job time : 17.2509 secs
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US-08-974-899-2
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Best Local
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                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/0:
FILING DATE: 11/27/96
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                NAME: Lee, Wendy M.
REGISTRATION NUMBER: 40,378
REFERENCE/DOCKET NUMBER: P1014R1
                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                  ENGTH:
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                                                                                                                                                                                                                                                                                     1: 108 amino acids
Amino Acid
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                                                              RESGSGSGTDFTLTISSLOPEDFATYYCQQHNEYPLTFGQGTKVEIK 107
                                                                                          RESGSGSGTDETLTISSLOPEDFATYYCQQYNSYPPTEGQGTKVEIK 107
                                                                                                                                                        DIOMTOSPSSLSASVGDRVTITCRASOGISSWLAWYOOKPEKAPKSLIYAASSLOSGVPS
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                                                                                                                                                                                                                                                                      Linear
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                                                                                                                                                                                                        87.9%;
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                                                                                                                                                                                                        Score 489; DB 3
Pred. No. 3e-39;
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                                                                                                                                                                                                                       DB 3;
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                                                                                                                                                                                                                       Length 108;
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Result
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Perfect score:
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                                                                                                No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.
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		Ig heavy chain	Ig heavy chain	Ig heavy chain	Ig heavy chain	-	heavy	heavy	heavy	heavy	Ig heavy chain	Ig heavy chain	Ig heavy chain	Ig heavy chain	Ig heavy chain	Ig heavy chain

ALIGNMENTS

S29546
Ig heavy chain V region (COS-8 / DP-46) -

human (fragment)

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R/Schröeder Jr., H.W.; Wang, J.Y.
Proc. Natl. Acad. Sci. U.S.A: 87, 6146-6150, 1990
A;Title: Preferential utilization of conserved imm
A;Reference number: A36005; MUID:90349571; PMID:21
                                                                                                                        Ig heavy chain V region (M49) - human C;Species: Homo sapiens (man) C;Date: 21-Dec-1990 #sequence revision C;Accession: F36005
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F36005
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C;Date: 07-Jan-1994 #sequence revision 17-Nov-1995 #text_change 23-Jul-1999
C;Accession: S25946; S26888
R;Tomlinson, M.; Walter, G.; Cook, G.P.; Winter, G.
submitted to the EMBL Data Library, October 1992
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A; Accession: F36005
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A;Note: designated COS-8
R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.
J. Mol. Biol. 227, 776-798, 1992
J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups
A;Reference number: S26885; MUID:93021117; PMID:1404388
A;Accession: S26888
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A; Residues: 1-98 < TOM>
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A;Accession: S29546
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A;Molecule type: DNA
A;Residues: 1-98 <TO2>
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100.0%; Pred. No. 5.8e-42;
. Mismatches 0;
                                                                                                                                                   21-Dec-1990
                  rved immunoglobulin heavy chain variable gene PMID:2117273
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Ig heavy chain V region (M/2)
C;Species: Homo sapiens (man)
C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990 #text_change 16-De
C;Accession: B36005
R;Schroeder Jr., H.W.; Wang, J.Y.
Proc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990
A;Title: Preferential utilization of conserved immunoglobulin heavy (A;Reference number: A36005; MUID:90349571; PMID:2117273
A;Accession: B36005
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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A;Molecule type: mRNA
A;Residues: 1-119 <SCH>
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fitle: Preferential utilization of conserved immunoglobulin heavy chain variable
/Reference number: A36005, MUID:90349571, PMID:2117273
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Best Local
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Pred. No. 7.2e-42;
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C;Date: 22-No. C;Catcession: 331679
C;Accession: 331679
R;Cuisinier, A.M.; Gauthier, L.; Boubli, L.; rsubmitted to the EMBL Data Library, June 1992
A;Description: Mechanisms that generate human
A; Molecule type: DNA
A; Residues: 1-114 <FIG>A; Residues: 1-114 <FIG>A; Cross-references: EMBL: Z31686; NID: g509782; PIDN: CAA83491.1; PID: g1335143 C; Superfamily: immunoglobulin V region; immunoglobulin homology C; Keywords: heterotetramer; immunoglobulin
                                                                                                                         R;Figini, M.; Marks, J.D.; Winter, G.; Griffiths, A.D. J. Mol. Biol. 239, 68-78, 1994
A;Title: In vitro assembly of repertoires of antibody chains A;Reference number: S46390; MUID:94254092; PMID:8196048
A;Accession: S46390
                                                                                                                                                                                                                                   Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change
C;Accession: S46390
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A; Residues: 1-134 < CUI>
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C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM>
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C;Genetics:
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Pred. No. 8e-42;
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A;Experimental source: B cells from patient AW with acute lymphoblastic leukemia, ALL A;Note: the sequence shows the V region (AW-Vx) from a nonproductive DNA rearrangement R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelpn, M.B.; Winter, G. J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups of A;Reference number: S26885; MUID:93021117; PMID:1404388
A;Accession: S26892
                                                                                                                                                                                                                                                                                                                                                     R; Bird, J.; Galli, N.; Lam., J. Exp. Med. 168, 229-245, 1988
                                          A; Molecule type: DNA
A; Residues: 1-98 < TOM>
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A;Title: Restricted utilization of germ-line V(H)3 genes
A;Reference number: S31104; MUID:92111633; PMID:1730252
                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-98 <BIR>
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                                                                                                                                                                                                                                                                                                                        A;Title: Continuing rearrangement but absence of somatic A;Reference number: PL0116; MUID:88286083; PMID:2840480
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R;Raaphorst, F.M.;
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Best Local S
Matches 97
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                                                                                                                                                                                                                                                                                                                                                                                  Species: Homo sapiens (man);Date: 07-Jun-1990 #text_change;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change;Accession: PL0116; S26892;Bird, J.; Gallli, N.; Link, M.; Stites, D.; Sklar, J.
Cross-references: EMBL:Z12349; NID:g32918; PIDN:CAA78219.1; PID:g32919
Superfamily: immunoglobulin V region; immunoglobulin homology
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Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
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100.0%; Pre
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99.0%;
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Pred. No. 2.1e-41;
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Pred. No. 1.3e-41;
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Ig heavy chain
C:Species: Homo
C:Date: 02-Dec-1
C:Accession: S31
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S31116
              A;Cross-references: EMBL:X62966
A;Note: the nucleotide sequence was submitted to the ENC;Superfamily: immunoglobulin V region; immunoglobulin C;Keywords: heterotetramer; immunoglobulin
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A;Title: Restricted utilization of germ-line V(H)3 genes A;Reference number: S31104; MUID:92111633; PMID:1730252
A;Accession: S31119
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S31119
                                                                                   A; Molecule type: mRNA
A; Residues: 1-118 < RAA>
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F;15-98/Domain: immunogiobulin homology <IMM>
F;31-35/Region: complementarity-determining 1
F;49-65/Region: complementarity-determining 2
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                                                                                                                                                                                                   ;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999;Accession: S31116
;Raaphorst, F.M.; Timmers, B.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cross-references: EMBL:X62970;Note: the nucleotide sequence was submitted to the Explorer family: immunoglobulin V region; immunoglobulin
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;Raaphorst, F.M.; 7
                                                                                                                   Status: preliminary; nucleic acid sequence
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Best Local Similarity
Matches 96; Conserv
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Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
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Best Local
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immunoglobulin homology
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Pred. No. 3.4e
1; Mismatches
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Pred. No. 2.7e-41;
1; Mismatches 1
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Similarity

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Score Pred.

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DB 2; .1e-41;

Length

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A;Note: the nucleotide sequence was submitted to the ENC;Superfamily: immunoglobulin V region; immunoglobulin
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A;Title: Restricted utilization of germ-line V(H)3 genes and short diverse third complem
A;Reference number: S31104; MUID:92111633; PMID:1730252
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S19666
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
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;Date: 02-Dec.1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
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;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 20-Jun-2000
                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                          Keywords: heterotetramer; immunoglobulin
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-98/Domain: immunoglobulin homology <IMM>
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ADSVKGRPTISRDNSKNTLYLOMNSLRAEDTAVYYCAR
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Pred. No. 6.5e-41
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C;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
C;Accession: S31117
R;Raaphorst, F.M.; Timmers, E.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.
                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; nucleic acid sequence not shown; translation not A;Molecule type: mRNA
A;Residues: 1-122 <RAA>
                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Title: Restricted utilization of germ-line V(H)3 genes A;Reference number: S31104; MUID:92111633; PMID:1730252 A;Accession: S31117
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Best Local S
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                                                                        61 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
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Pred. No. 8.1e-41;
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A;Cross-references: EMBL:Z12350; NID:g32922; PIDN:CAA78220.1; PID:g32923 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM> A;Cross-references: BMBL:Z46379; NID:g587147; PIDN:CAA86512.1; PID:g1340168 R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G. J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fift: A;Reference number: S26885; MUID:93021117; PMID:1404388
A;Accession: S26893 C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision 13-Sep-1998
C;Accession: S48797; S26893 A; Molecule type: DNA A; Residues: 1-98 < TOM> A; MOLECULE type: mRNA A; Reference number: S48797 R; Mahmoudi, M.; Edwards, submitted to the EMBL Data Library, Ig heavy chain V region Residues: 1-128 <MAH> Accession: Description: Molecular characterization of natural human J.; Cairns, (anti-Sm, VH3/Dxp4/JH6) - human (fragment) October 1994 E.; Bell, #text_change 23-Jul-1999 anti-Sm about fifty groups autoantibodies

Query Match

тосат

Similarity

97.9%;

Score 501; DB 2; Pred. No. 8.5e-41

Length 128

Indels

Gaps

Conservative

0

Mismatches

QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

IGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY

60

ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98

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RESULT 15

S31603
Ig heavy chain V region - human
C.Species: Homo sapiens (man)
C.Date: 03-Mar-1994 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
C.Accession: S31603
R.C.Lisinier, A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.
Submitted to the EMBL Data Library, June 1992
R.C.Baccession: S31603
A.Description: Mechanisms that generate human immunoglobulin diversity operate from the A.Reference number: S31685
A.A.Cession: S31603
A.Status: preliminary
A.Nolecule type: mRNA
A.Residues: 1-12 <CUI>A.COLORIA
A.Residues: 1-12 <CUI
A.Residues: immunoglobulin V region; immunoglobulin homology
C.Superfamily: immunoglobulin V region; immunoglobulin homology
C.Superfamily: immunoglobulin homology </td>

DB 2; Length 132;
COLORIA SIMILARITY 96.9%; Score 501; DB 2; Length 132;
Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
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Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Overy Match
Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Overy Match
Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Overy Match
Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Overy Match
Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Overy Match
Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Matches 95; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Overy Match
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Best Local Similarity 96.9%; Pred. No. 8. 8e-41;
Best Local Similarity 96.9%; Pred. No. 8e-41;
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Title:
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Maximum Match 100%
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Ig heavy chain - h	Ig heavy chain V r	Ig variable region	Ig heavy chain - h	Ig variable region	Ig heavy chain - h	Ig heavy chain V-I	Ig heavy chain - h	Ig heavy chain V r	Ig mu chain - huma	Ig heavy chain V r	Ig heavy chain V r	Ig heavy chain - h	Ig heavy chain V r	Ig heavy chain V r	Ig heavy chain - h

ALIGNMENTS

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ig heavy chain V region (M49) - human (Species: Homo: Bapiens (man) (C;Species: Homo: Bapiens (man) (C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990 #text_change 16-Dec-1998 (C;Accession: F36005 R;Schroeder Jr., H.W.; Wang, J.Y. Proc. Matl. Acad. Sci. U.S.A. 87, 6146-6150, 1990 A;Title: Preferential utilization of conserved immunoglobulin heavy chain variable (A;Reference number: A36005; MUID:90349571; PMID:2117273 A;Accession: F36005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: EMBL:X62967
A;Cross-references: EMBL:X62967
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1991
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
A;Molecule type: mRNA
A;Residues: 1-119 <SCH>
A;Cross-references: GB:M34026
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C;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
C;Accession: S31117
R;Raaphorst, F.M.; Timmers, E.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; nucleic acid
A;Molecule type: mRNA
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2; Mismatches 6
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C;Accession: S31701
R;Cuisinier, A.M.; Gauthier, L.; Boubli, L.; Fougereau, submitted to the EMBL Data Library, June 1997
                                                                   Ig heavy chain V region - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 22-Nov-1993 #sequence_revision 10-Nov-1995
C:Accession: S31701
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A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups A;Reference number: 826885; MUID:93021117; PMID:1404388
A;Accession: 826893
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A;Residues: 1-98 <TOM>
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C;Superfamily: immunoglobulin V region; immuno
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Genetics:
A;Gene: GDB:IGH@; IGHDY1
A;Cross-references: GDB:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain V region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Species: Homo sapiens (man)
Jate: 13-Jan-1995 #sequence_revision 13-Sep-1998 #text_change 23-Jul-1999
Accession: S48797; S26893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Accession: S48797
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local
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                                                                                                                                                                                                                       GTTVTVSS
                                                                                                                                                                                                                                                                                           ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARDNYYYDSSGYYYYYYGMDVWGQ 120
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         Mechanisms
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                                                                                                                                                                                                                       128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     89.3%;
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Pred. No. 1.
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Pred. No. 1.6e-45;
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                                         M.; Tonnelle,
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diversity operate from
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A, Molecule type: mRNA
A, Residues: 1-133 <TIM>
A, Residues: 1-133 <TIM>
A, Residues: 1-133 <TIM>
A, Residues: 1-133 <TIM>
A, Residues: 1-133 <TIM>
A, Residues: 1-134 <TIM>
A, Residues: 1-134 <TIM
A, Byperimental source: X-linked agammaglobulinemia patients, B lymphoblastoid A, Mote: sequence extracted from NCBI backbone (NCBIN:64471, NCBIP:64470)
C, Superfamily: immunoglobulin V region; immunoglobulin homology
                                                                                                                                                              A;Title: Diversity of immunoglobulin heavy chain gene segment A;Reference number: A49028; MUID:92008140; PMID:1915549 A;Accession: A49028
                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                              Eur. J. Immunol.
                                                                                                                                                                                                                                                R; Timmers, E.; Kenter,
                                                                                                                                                                                                                                                                   C; Accession: A49028
                                                                                                                                                                                                                                                                              C;Species: Homo sapiens (man)
C;Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 23-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 03-Mar-1994 #sequence_revision 10-Nov-1995 #text_change
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R; Cuisinier, A.M.;
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C;Keywords: heterotetramer; immunoglobulin
F;34-117/Domain: immunoglobulin homology <
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
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A; Residues: 1-137 < CUI>
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A;Accession: S31601
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Best Local :
                                                                                                                                                                                                                                                                                                            heavy chain V-III region -
Species: Homo sapiens (man)
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                                                                                                                                                                                                                                                                                                                                                                                                                                   76 AVSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARG---LG-FDYWGQGTLVTVSS
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                                                                                                                                                                                                                      enter, M.; Thompson, 21, 2355-2363, 1991
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Pred. No. 5e-45;
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Pred. No. 3.8e-45;
4; Mismatches 6
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A;Reference number: S19663; MUID:92085276; PMID:1748994
                                                                                                                                                                                                              R; Marks, J.D.; Hoogenboom, H.R.; Bonnert, T.P.; McCafferty, J. Mol. Biol. 222, 581-597, 1991
                                                                                                                                                                                                                                            Ig heavy chain V region (VH3DJH4) - human
C;Species: Homo sapiens (man)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 20-Jun-2000
C;Accession: S19666
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Best Local S
Matches 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;Note: the nucleotide sequence was submitted to the EMBL Data Library, ;Superfamily: immunoglobulin V region; immunoglobulin homology ;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ur. J. Immunol. 22, 247-251, 1992;Title: Restricted utilization of germ-line V(H)3 genes;Reference number: S31104; MUID:92111633; PMID:1730252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;Accession: S31116;Raaphorst, F.M.; Timmers, E.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;15-98/Domain:
                                                                    ;Cross-references: EMBL:X61646; NID:g37688; PIDN:CAA43827.1; PID:g1335369;Superfamily: immunoglobulin V region; immunoglobulin homology
;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Status: preliminary; nucleic acid Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Species: Homo sapiens (man)
Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
 Query Match
Best Local
                                                                                                                       Molecule type: mRNA
Residues: 1-121 <MAR>
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Pred. No. 7.7e-45;
2; Mismatches 7;
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Pred. No. 7.8e-45;
 Score 551; DB 2;
Pred. No. 3.9e-44;
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A;Molecule type: mRNA
A;Residues: 1-135 <CUI>
A;Cross-references: EMBL:Z14170; NID:g31001; PIDN:CAA78539.1; PID:g31002
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;31-114/Domain: immunoglobulin homology <IMM>
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S31598
                                                                                                                                                                                                                                                                                                                                                                                                                     Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
                                                                                                                                                                                                                                                                                                     A;Accession: S31598
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                                                                                                                                                                                                                                                                                                                                                                    R; Cuisinier, A.M.; Gauthier, L.; Boubli, L.; submitted to the EMBL Data Library, June 1992
                                                                                                                                                                                                                                                                                    A; Status: preliminary
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
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;Date: 03-Mar-1994 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
                                                                                                 Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                               Accession: S31598
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                       QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
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QVQLVESGGGVVQPGGSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAFIRYDGSNKYY 76
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                                                                           Score 549; DB 2;
Pred. No. 6.7e-44;
4; Mismatches 10
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Pred. No. 5.3e-44;
3; Mismatches 7
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A;Cross-references: GDB:118731; OMIM:146910
A;Map position: 14q32.33-14q32.33
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ig heavy chain V region (M74) - human
C;Species: Homo sapiens (man)
C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accession: Ur., H.W.; Wang, J.Y.
SChroeder Jr., H.W.; Wang, J.Y.
roc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990
roc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990
rittle: Preferential utilization of conserved immunoglobulin heavy chain variable
rittle: Preferential utilization of paid print of the property of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the pr
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Best Local
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Residues: 1-121 <SCH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Cross-references: EMBL:Z14204; NID:g30967; PIDN:CAA78573.1; PID:g30968;Superfamily: immunoglobulin V region; immunoglobulin homology;Keywords: heterotetramer; immunoglobulin ;Xeywords: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accession: 831674; Cauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cross-references: GB:M34031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Status: preliminary
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;Residues: 1-139 <CUI>
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                         98/Domain:
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                                                                                        ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPNYIG--AFDVWGQGTMVTVS
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                                                  ADSVKGRFTISRI
                                                                                                                                                QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
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                                         LYLOMNSLRAEDTAVYYCARDRKDWGWALFDYWGQGTLVTVS
                                                                                                                                                                                                                                                                                              Score 548; DB 2;
Pred. No. 7.4e-44;
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Pred. No. 7.6e-44;
4; Mismatches 8;
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                                                                                                                                                                                                                                                                                                                     Length 121;
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A;Residues: 1-140 <CUI>
C;Superfamily: immunoglobulin V region; immuno;
F;34-117/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_ch. (Accession: S70442 R;Cuisinier, A.M.; Fumoux, F.; Fougereau, M.; Tonnelle, C. Mol. Immunol. 29, 1363-1373, 1992
A;Title: IgM kappa/lambda EBV human B cell clone: an early A;Reference number: S70442; MUID:93024508; PMID:1383695
A;Accession: S70442
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A;Map position: 14g32.33-14g32.33
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
C;Keywords: heterotetramer; immunoglobulin
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Proc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990

A;Title: Preferential utilization of conserved immunoglobulin

A;Reference number: A36005; MUID:90349571; PMID:2117273

A;Accession: B36005
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Best Local S
Matches 107
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C;Species: Homo sapiens (man)
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Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change
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;Residues: 1-122 <SCH;
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107; Conserv
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                                            ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPNYIGA--FDVWGQGTMVTVS 118
                                                                                                       QVQLVESGGGVVQPGGSLRLSCAASGFTPSNYGMHWVRQAPGKGLEWVAFIRYDGSNKYY
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                                                                                                                                                                                                                                                                                                                                                                  region; immunoglobulin homology
                                                                                                                                                                                                                       Score 545.5; DB 2
Pred. No. 1.5e-43;
5; Mismatches 6
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Pred. No. 8.3e-44;
4; Mismatches 8
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                                                                                                                                                                                                                                                                            DB 2;
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-DHIVGATYFD
                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                            Length 140;
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Riccistinier; A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.

Riccistinier; A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.

Riccistinier; A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.

Riccistinier; A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.

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C; Keywords: heterotetramer; immunoglobulin

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Copyright (c) 1993 - 2003 Compugen Ltd.
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Ponsting! H., Hilschmann N.;

"The rule of antibody structure. The primary structure of a "The rule of antibody structure. The protein Nie). III. The monoclonal IgG1 immunoglobulin (myeloma protein Nie). III. The chymotryptic peptides of the H-chain, alignment of the tryptic peptides and discussion of the complete structure.";

Popper Seyler's Z. Physiol. Chem. 357:1571-1604(1976).
  MEDLINE=77070267; PubMed=1002129; Dreker L., Schwarz J., Reichel W., Hilschmann N.; Primary structure of a monoclonger of antibody structure. The primary structure of a monoclonger of immunoglobulin (myeloma protein Niel). I: Purification and characterization of the protein, the L- and H-chains, the cyanogen bromide cleavage products, and the disulfide bridges."; Hoppe-Seyler's Z. Physiol. Chem. 357:1515-1540(1976).

-I- MISÇELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGG! MYRIOMA
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P01770;
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MEDLINE=77070269;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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c. Natl. Acad. Sci. U.S.A. 77:3239-3243(1980)
MISCELLANEOUS: THIS MU CHAIN WAS ISOLATED FF
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Pro; IPR003596; Ig_V.
PF000476; Ig; 1.
% SM00406; IGv; 1.
noglobulin V region.
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HSSP; P01772; 2FB4.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Pred. No. 1.8e
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SMART; SM00406; IGv;
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MEDLINE=83289131; PubMed=6884
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Homo sapiens (Human)
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ro heavy chain V-III region
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arquart M., Deisenhofer J., Huber R., Palm W.;
Crystallographic refinement and atomic models of the intact
Crystallographic refinement and its antigen-binding fragment at 3.0
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61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCAR----
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                                                QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
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1 PYRROLIDONE CARBOXYLIC ACID.
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g H.-D:, Palm W.,
                                                                                                                         13718 MW;
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71.2%;
                                 /QPGRSLRLSCSSSGF1FSSYAMYWVRQAPGKGLEWVAIIWDDGSDQHY
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Pred. No. 5.
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MEDLINE=81234548; PubMed=6788376;
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15-JUL-1999
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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InterPro; IPR003596;
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62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCARAPNY-IGAFDVWGQGTMVTVSS
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R InterPro; IPR00306; Ig_v.

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PYRROLIDONE CARBOXYLIC ACI

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SEQUENCE 119 AA; 12981 MW; 12A709A757AA700A
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21-JUL-1986
15-JUN-2002
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P01781;
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P01773;
              Hilschmann
                                                 Watanabe S., Barnikol H.U., Horn J., Bertram J., Hilschmann N.;
"The primary structure of a monoclonal IgM-immunoglobulin
(macroglobulin Gal.), II: the amino acid sequence of the H-chain (mu-
type), subgroup H III. Architecture of the complete IgM-molecule.";
Hoppe-Seyler's Z. Physiol. Chem. 354:1505-1509(1973).
                                                                                                                                  SEQUENCE.
                                                                                                                                                          NCBI_TaxID=9606;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae
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Putham F.W., Liu Y.-S.V., Low T.L.K.;
"Primary structure of a human IgA1 immunoglobulin. I IgA1 protease, digestion, Fab and Fc fragments, and amino acid sequence of the alpha 1 heavy chain.";
J. Biol. Chem. 254:2865-2874(1979).
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19 heavy chain V-III region GAL.
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Best Local S
Matches 87
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Best Local Similarity
Matches 88; Conserv
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InterPro; IPR003596; Ig_V,
Pfam; PF00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON TER 116 116
SEQUENCE 116 AA; 12730
                                                                                                                                                                                                                                                                                MOD_RES
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goni F., Frangione B.;

"Amino acid sequence of the Fv region of a human monoclonal IgM
(protein WEA) with antibody activity against 3,4-pyruvylated
galactose in Klebsiella polysaccharides K30 and K33.";

Proc. Natl. Acad. Sci. U.S.A. 80:4837-4841(1983)

-I- MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM A MONOCLONAL ANTIBODY
AGAINST 3,4-PYRUVYLATED GALACTOSE AND ISOLATED FROM A PATIENT WITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-JUL-1986
21-JUL-1986
15-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; A02046; M3HUWE.
HSSP; P01772; 2FB4.
InterPro; IPR003006;
                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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Mammalia, Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PF00047: ic. i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=83273707; PubMed=6410398;
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HSSP; P01772; 2FB4.
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                                                                                                                                                                                       87;
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                                                                                                                                                                                                             Similarity
                                                                                                                    QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                                          ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPNYIGAFDVWGQGTMVTVSS
                                                                                           QVQLVDSGGGLVEPGGSLRLSCSASGFTFSANDMWVRQAPGKGLEWLSFIGGSGSTIYY
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ADSVKGRFTISRNBSKNSLYLOMSSLRAEDTAVYYCAR-----GWLLNWGQGTLVTVSS
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                                                                                                                                                                                                                                                                                     114 AA;
                                                                                                                                                                                       Conservative
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(Rel. 01, Last sequence up)
(Rel. 38, Last annotation)
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                                                                                                                                                                                                                                                                                114
12256 MW;
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Primates;
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                                                                                                                                                                                                          Score 440.5; DB 1
Pred. No. 1.7e-39;
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Pred. No. 2.5e-40;
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Catarrhini;
                                                                                                                                                                                                                                                                                     D88294FB418A07B7 CRC64;
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114
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Matches 87
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGy; 1.
Immunoglobulin V region.
NON_TER 120 120
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POLTEZ;

21-JUL-1986 (Rel. 01, Createu,
21-JUL-1996 (Rel. 01, Last sequence upontation
15-JUL-1999 (Rel. 38, Last annotation
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15-JUL-1996 (Rel. 38, Last annotation)
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P01766;
21-JUL-1986
                                                                MEDLINE=80020921; PubMed=114209;
Steiner L.A., Garcia Pardo A., Margolies M.N.;
"Amino acid sequence of the heavy-chain variable
crystallizable human myeloma protein Dob.";
Biochemistry 18:4068-4080(1979).
MEDLINE=80020920; PubMed=114208; Steiner L.A., Lopes A.D.; "The crystallizable human myeloma
                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Comparative studies on monotypic IgM lambda and IgG kappa from an individual patient. III. The complete amino acid sequence of the vegion of the IgM paraprotein.";
Immunochemistry 13:995-999(1976).
-I- MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM IGM ISOLATED FROM SERUM OF A PATIENT WITH MALIGNANT LYMPHOMA OF THE WALDENSTROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HUMAN
                                         CRYSTALLIZATION.
                                                                                                                                                           NCBI_TaxID=9606;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                     SEQUENCE
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15-JUL-1999 (Rel. 38, Last annotation
15 heavy chain V-III region BRO.
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Primates;
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Pred. No. 2.2e
12; Mismatches
                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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protein Dob
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2.2e-38;
12;
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a hinge-region
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RESULT 12
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin v region.
NON TER 120 120
SEQUENCE 120 AA; 13440 MW;
                                  CHAIN
NON TER
SEQUENCE
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                                                                                                                                                                           EMBL; J00236; AAA53516.1; -. EMBL; M35415; AAA58735.1; -.
                                                                                                                                                                                                            use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (Second or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                      Matthyssens G., Rabbitts T.H.;
"Structure and multiplicity of genes for the human heavy chain variable region.";
Proc. Natl. Acad. Sci. U.S.A. 77:6561-6565(1980).
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=81101090; PubMed=6450418;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-JUL-1986
15-JUL-1999
                                                                     Immunoglobulin
                                                                                                                                        HSSP; P01772; 2FB4.
Genew; HGNC:5545; IGHV@
                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produbetween the Swiss Institute of Bioinformatics
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Mammalia; Eutheria;
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PIR; A02065; G1HUDB.
HSSP; P01772; 2FB4.
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                                                                                                                                                                                                                                                          the European Bioinformatics Institute.
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InterPro; IPR003596; Ig_v.
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MISCELLANEOUS: THIS GAMMA-1 MYELOMA PROTEIN HAS A DELETION IN
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re heavy chain V-III region BUT.
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21-JUL-1986
15-JUL-1999
    SEQUENCE.
MEDLINE-78137069; PubMed=416441;
TOZANO A., Putnam P.W.;
"Complete amino acid sequence of
                                                                                                                                    Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Capra J.D., Kehoe J.M.;
"Variable region sequences of five
of the VH3 subgroup: definitive ide
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Proc. Natl. Acad. Sci. U.S.A.
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NCBI_TaxID=7957;
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01-NOV-1990 (Rel. 16, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
Ig heavy chain V region 5A precursor.
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InterPro; IPR003006;
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Wilson M.R., Middleton D., Warr G
"Immunoglobulin heavy chain varia
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PIR; B28966; B28966.
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FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK-2.
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FRAMEWORK-3.
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; Pred. No. 1.9e
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75:966-969(1978)
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sp_archea:*
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Copyright (c) 1993 - 2003 Compugen Ltd
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sp_bacteria:*
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ALIGNMENTS

Eukaryota; Metazoa; Mammalia; Eutheria;

Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.

fomo sapiens (Human)

(TrEMBLrel. 20, Created)
(TrEMBLrel. 20, Last sequence update)
(TremBLrel. 21, Last annotation update)

update)

rissue=Tonsil;

EQUENCE FROM N.A. VCBI_TaxID=9606;

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Best Local Similarity

Matches 108; Conserv
                                                                                                                   PROSITE; PS00290; IG-
Hypothetical protein.
SEQUENCE 613 AA; 6
                                                                                                                                                  SMART; SM00409; IG; 2.
SMART; SM00407; IGC1;
SMART; SM00406; IGV; 1
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                                                                                                                                                                                                                                                         Submitted
61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCARA-PNYIGAFDVWGQGTMVTVSS 119
                      QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 79
                                        QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                                                                                                                                                                                            IPR003597; Ig_c1.
IPR003006; Ig_MHC
IPR003596; Ig_v.
                                                                                                                                                                                                                                               (DEC-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                        PR003597;
                                                                        Conservative
                                                                                                                                    IG_MHC; UNKNOWN_3.
                                                                                                              67296 MW; 60C7F5950671E315 CRC64;
                                                                  88.2%; Score 558.5; DB 4; Length 90.0%; Pred. No. 3.6e-50; Indels
                                                                                                                                                                                                                                           40.1;
                                                                                         613;
                                                                   1.
                                                                 Gaps
                                            60
                                                                  1.
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musculu

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OC Mammalia, Butheria; Primates; Catarrhini; Hominidae; Homo.

RD SEQUENCE FROM N.A.

RC TISSUE=MAMARY GLAND;

RA Isogai T., Octa T., Hayeshi K., Sugiyama T., Otsuki T., Suzuki Y.,

RA Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H., Sugawara M.,

RA Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H., Sugawara M.,

RA Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H., Sugawara M.,

RA Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H., Sugawara M.,

RA Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H., Sugawara M.,

RA Nishikawa T., Nagai K., Murakawa K., Ono Y., Takiguchi S.,

RA Nishikawa T., Nagai K., Murakawa K., Ono Y., Takiguchi S.,

RA Watanabe S., Kimura K., Murakawa K., Ono Y., Takiguchi S.,

RA Nishikawa T., Nagai T.,

Nagai M., Saito K.,

RA Yamamoto J., Wakamatea A., Nakamura Y., Nagahari K., Masuho Y.,

RA Nishikawa T., Nagai T.,

RA Nishikawa T., Nagai T.,

Nakamatea A., Narakawa K., Ono Y., Takiguchi S.,

RA Nishikawa T., Nagai T.,

Nakamura Y., Nagai K., Saito K.,

RA Nishikawa T., Nagai T.,

Nakamura Y., Nagahari K., Masuho Y.,

RA Nishikawa T., Nagai T.,

Nakamura Y., Nagahari K., Masuho Y.,

RA Nishikawa T., Nagai T.,

Nakamura Y., Nagai T.,

Nakamira H., Kondo H., Sugawara M.,

Nishikawa T., Nagai T.,

Nakamira Y., Nagai T.,

Nakamira Y., Nagai T., Nakawi Y.,

Nakamira Y., Nagai T.,

Nakamira Y., Nagai T.,

Nakamira Y., Nagai T.,

Nakamira H., Kondo H., Sugawara M.,

Nakamira H., Kondo H., Sugawara M.,

Nakamira H., Kondo H., Sugawara M.,

Nakamira T., Nakamira T., Nagai T.,

Nakamira H., Kondo H., Sugawara M.,

Nakamira H., Kondo H., Sugawara M.,

Nakamira H., Kondo H., Sugawara M.,

Nakamira H., Kondo H., Sugai T.,

Nakamira H., Kondo H.
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Search.completed: June 3, 2003, 08:20:48 Job time : 60.2969 Becs

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

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Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM protein -
                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                     633
574.5
572
566.5
564.5
563.5
                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length: 0
length: 2000000000
                                                                                                                                                                                        Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-644-668A-23
633
1 QVQLVESGGGVVQPGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                      100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                908470 seqs, 133250620 residues
                                   90.8
90.8
89.5
89.5
89.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A_Geneseq_101002:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QVQLVESGGGVVQPGRSLRL.....PNYIGAFDVWGQGTMVTVSS 119
                                                                                                                                                                                                                                                                                                                                                       /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1995.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1996.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1996.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2000.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2001.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqp-embl
/SIDS2/gcgdata/geneseq/geneseqp-embl
/SIDS2/gcgdata/geneseq/geneseqp-embl
                                                                                                                                                                                          Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIDS2/gcgdata/geneseq,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gcgdata/geneseq/geneseqp-emb
                                                                                                                                                                                          ä
 ABP45098
AAU81993
AAY93707
AAY93732
AAY82629
AAY82629
AAY08598
AAY93701
AAY93701
                                                                                                                                        AAB67516
AAY93734
                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /geneseqp-embl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  908470
Human secreted pro
The heavy chain of
The heavy chain of
Human PTHrP monocl
Anti-human TNF-alp
The heavy chain of
The heavy chain of
                                                                                                                                                                                        Description
                                                                                                                    Heavy chain variab
The heavy chain of
Human BLyS binding
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Human interleukin	AAB99369	22	225	86.7	549
anti-Rh(D)	Մ	22	125	٠,	549
anti-Rh(D)	AAG93578	22	125	86.7	4
	AAG93577	22	125	86.7	4
7	AAG93565	22	125	٥.	4
Human foetal immun	AAR95216	17	119	٠,	4
HD70scFv-Ck-interl	AAY44995	21	524	86.9	v
HD70scFv-CH1-GM-CS	AAY44994	21	523	•	U
Amino acid sequenc	AAW80815	19	138	٠,	UT.
	AAY17954	20	127	86.9	550
BLyS	ABP44501	23	249	87.0	
IL12 a	AAB39519	21	115	7.	u
BLyS	ABP45748	23	254	87.1	-
	ABP45190	23	252	.7	51.
BLyS	ABP44977	23	252	87.4	553
0,	ABP44913	23	247	87.4	553.5
heavy c	AAY93730	21	464	87.5	554
The heavy chain of	AAY93703	21	464	7.	554
Human DP-46 heavy	AAM51167	23	118	87.6	554.5
BLyS bindi	LO.	23	249	87.7	v
Anti-TGF beta-1 sc	AAW1553.4	18	123	87.7	555
Human BLyS binding	ABP44944	23	251	87.8	556
Human PTHrP monocl	AAY82623	21	143	87.9	56
Human PTHrP monocl	AAY82622	21	143	87.9	556.5
Human PTHrP monocl	AAY82625	21	143	88.1	57
Anti-adipocyte mon	AAU02515	22	119	œ	558
novel	AAU14288	22	477	æ	83
	AAY82621	21	143	ω.	58
anti-	AAB72881	22	122	88.2	558.5
	ñ	22	122	œ	59
chain	m	23	154	8	σ
Human BLyS binding	ABP45616	23	252	8	8
adipoc		22	120	88.5	
2	550	23	252		561.5
The heavy chain of	AAY93728	21	463	88.9	562.5

ALIGNMENTS

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RESULT 1
AAB67516
Region
                                                                                                                                                                                                                                                              Complementarity determining region; CDR; immune response; antibody; cytotoxic Tlymphocyte associated antigen-4; CTLA-4; B7 ligand; cancer;
           24-AUG-2000; 2000WO-US23356
                                    01-MAR-2001
                                                                                                 Region
                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                     autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus;
                                                                                                                                                                                                                                                                                                    Heavy chain variable region of anti-CTLA-4 antibody 1E2.
                                                                                                                                                                                                                                                                                                                             29-MAY-2001
                                                                                                                                                                                                                                                                                                                                                      AAB67516;
                                                                                                                                                                                                                                                                                                                                                                            AAB67516 standard; peptide; 119 AA.
                                                           WO200114424-A2
                                                                                                                        Region
                                                                                                                                                                                                             transplant rejection; graft versus host disease.
                                                                                                                                                                                                                           rheumatoid arthritis; myasthenia gravis; lupus erythematosus;
multiple sclerosis; insulin-dependent diabetes mellitus; inflammation;
                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                        /note= "CDR1"
50..66
                                                                                                                                                 Location/Qualifiers 31..35
                                                                                                  /note= "CDR2"
99..108
                                                                                     note= "CDR3"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cyrotoxic T lymphocyte associated antipody epecifically binds to human cyrotoxic T lymphocyte associated antigen-4 (CTA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune response to an antigen in a patient, where the antibodies block binding of human CTA-4 to human P7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such inflammatory or allergic components and lupus erythematorus, multiple sclerosis insuling descriptions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 119;
           23-DEC-1998;
                                                                                                                  WO200037504-A2
                                              23-DEC-1999;
                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                       hyperimmunity
proliferative
                                                                                                                                                                                                                    Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody;
                                                                                                                                                                                                                                                       The heavy chain of immunoglobulin clone 11.2.1.
                                                                                                                                                                                                                                                                                              03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                 AAY93734 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prolonging immune response response in patient -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Movel human sequence antibody that binds to human cytotoxic Tlymphocyte associated antigen-4, useful for inducing, augment prolonging immune response to antigen or for suppressing immune.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Korman AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rne present sequence represents the heavy chain variable region human antibody 182. This antibody specifically hand we have
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MEDA-) MEDAREX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         abetes mellitus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCARAPNYIGAFDVWGQGTMVTVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPNYIGAFDVWGQGTMVTVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fig 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lupus erythematosus, multiple sclerosis, insulin-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Halk EL,
                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                       disorder;
           98US-0113647
                                            99WO-US30895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0150452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           transplant
                                                                                                                                                                                                                                                                                              entry]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lonberg
                                                                                                                                                                                     cancer;
                                                                                                                                                                                                       autoimmune
                                                                                                                                                                                                                                                                                                                                                                 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 633; DB 22;
Pred. No. 1.3e-50;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             z
                                                                                                                                                                                   immunodeficient disorder
                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                  disease; diabetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammation, graft versus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                immune system;
s; graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   augmenting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     e
                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
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Ś
                                                                                                 Matches 111;
                                                   Query Match
Best Local :
                                                                                                                        variable region, comprising a modified contiguous sequence from a FRI-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune disease, diabetes and graft rejection) and proliferative disorders (e.g. cancer). CTLA-4 stimulatory agents may be used to up-regulate immune system to up-regulate immunodeficient disorders.
                                                                                                Sequence
                                                                                                                                                                                                                                                 The present sequence represents a heavy chain of an antibody cinvention. The antibody is directed cytotoxic T-lymphocyte ant (CTLA)-4. Antibodies of the invention are composed of a heavy
                                                                                                                                                                                                                                                                                                                     Claim 2; Fig 22q; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                     Novel antibodies capable of binding (CTLA) -4 containing specified heavy for treating, e.g. immune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAA46898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hanson DC, Neveu MJ,
                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-442647/38
                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFIZER INC.
ABGENIX INC.
                                                                                                451 AA;
                                 Conservative
                                              90.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mueller EE,
                                            Score 575; DB 21;
Pred. No. 1.1e-44;
                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                  cytotoxic T-lymphocyte antigen and light chain sequences, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hanke JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gilman SC,
                                                           Length
                                                                                                                                                                                                                                                                                      antibody of
                                                                                                                                                                                                                                                      antigen
avy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Davis CG;
                               9
                            Gaps
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δ
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                                                                                                                         밁
 121
                            115 VTVSS 119
                                                             5
                                                                                           61
                                                                                      ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPN-----
                                                                                                                                        QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
VIVSS 125
                                                                                                                      QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                                                        ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARDPRGATLYYYYYGMDVWGQGTT 120
                                                                                      YIGAFDVWGQGTM 114
                                                                                                                      60
                                                                                                                                                      60
```

ABP45098 standard; Protein; 249

19-AUG-2002 (first entry)

Human BLyS binding SCFV SEQ ID 1109

RESULT 3
ABP45098
ID ABP4
XX ABP4
XX ABP4
XX ABP4
XX Huma
DT 19-A
XX Huma
XX Homa
XX H antiAIDS; vaccine; cancer; inmune; experimentally; systemic lupus erythematosus; rheumatoid arthritis; common variable immunodeficiency; acquired immunode/ BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic; tumour necrosis factor; B cell proliferation; B cell differentiation; mmunosuppressive; immunostimulant; immunomodulatory; antirheumatic, immune; autoimmune disorder; immunodeficiency syndrome

Homo sapiens.

10-JAN-2002

15-JUN-2001; 2001WO-US19110

16-JUN-2000; 2000US-212210P 17-OCT-2000; 2000US-240816P

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RESULT 4
AAU81993
ID AAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention describes novel antibodies that immunospecifically bind to B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNF) super family and induces B cell cumour necrosis factor (TNF) super family and induces B cell proliferation and differentiation. The antibodies of the invention have cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be associated with aberrant expression of BLyS. They may also be associated with aberrant expression of BLyS. They may also be candinistered to treat diseases associated with aberrant BLyS expression and activity such as cancer, immune, and autoimmune disorders and diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (CVII) and capuired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent the antibodies and fragments of the antibodies described in the method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
           Human; SECP; antiinflammatory; cytostatic; cardiant; immunosuppressive; antiviral; anti-HTV, antiarthritic; antirheumatic; muscular active general; anticonvulsant; nootropic; neuroprotective; antiallergic; hypotensive; cardiovascular disorder; atherosclerosis; hypertension; myocardial infarction; autoimmune disorder; inflammatory disorder; AIDS; acquired immunodeficiency syndrome; allergy; rheumatoid arthritis; cell proliferative disorder; cancer; developmental disorder; Duchenne muscular dystrophy; neurological disorder; epilepsy; Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                         09-APR-2002
                                                                                                                                                                                                                                                                                                               AAU81993 standard; Protein; 519 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antibodies against B Lymphocyte Stimulating polypeptides, useful the diagnosis and treatment of cancers and immune disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-MAR-2001; 2001US-276248P.
21-MAR-2001; 2001US-277379P.
25-MAY-2001; 2001US-293499P.
                                                                                                                                                                                                                                                                            AAU81993;
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                                                                                                                                                                                                  secreted protein SECP19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARASYYDILTGYYKGAFDIWGQGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAP-----NYIGAFDVWGQGT 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
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Pred. No. 6.3e-45;
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RESULT 5
AAY93707
ID AAY9
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AC AAY9
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AAY93707

standard; Protein; 463 AA

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Best Local :
                                                                                                                                                                                                                                                                         transgenic animal comprising the nucleic acid, an anti-SECP antibody, use of the SECP proteins in isolating agonists and antagonists of SECP activity and a method of isolating compounds which alter the expression of the SECP nucleic acid. The SECP polynucleotides and polygeptides are useful in the diagnosts, treatment and prevention of cardiovascular (e.g. atherosclerosis, hypertension, myocardial infarction), autoimmune/inflammatory (e.g. acquired immunodeficiency syndrome (AIDS), allergies, rheumatoid arthritis), cell proliferative (e.g. cancer), developmental (e.g. buchenne and Becker muscular dystrophy), and neurological (e.g. epilepsy, Alzheimer's disease) disorders. Numerous other examples of each disorder are given in the specification. The present sequence represents a SECP protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-JUN-2000;
31-JUL-2000;
08-SEP-2000;
                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to forty four human secreted proteins (referred as SECP-1 to SECP-44) and the nucleic acids encoding them. Also included are a host cell transformed with the nucleic acid, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Forty four human secreted proteins (referred to as SECP-1 to SECP-44), useful in the diagnosis, treatment and prevention of cardiovascular (e.g. atherosclerosis), autoimmune/inflammatory (e.g. allergies) and cell proliferative disorders -
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23-JUN-2000; 2000US-213466P
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SSA
                                                            ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARAGEGSPDTLVAFDIWGQGTMVT
                                                                                       ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARA----PNYIGAFDVWGQGTMVT
                                                                                                                      QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
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Gandhi AR,
                                                                                                                                                                                                                                                  519 AA;
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; 2000US-222372P.
; 2000US-231435P.
; 2000US-232889P.
                             119
                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tang YT, Yue H, Elliott VS, Tribouley Lal P, Xu Y, Warren BA, Hafalia AJA, Batra S, Burford N, Yao MG, Nguyen DB, andhi AR, Au-Young J, Patterson C;
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                                                                                                                                                                                                 90.4%;
                                                                                                                                                                                  Score 572; DB Pred. No. 2.3e 4; Mismatches
                                                                                                                                                                                                   DB 23;
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Baughn MR;
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03-OCT-2000

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RESULT 6
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Best Local
Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune system; hyperimmunity disorder; autoimmune disease; diabetes; graft rejection; proliferative disorder; cancer; immunodeficient disorder.
                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence represents a heavy chain of an antibody of the invention. The antibody is directed cytotoxic T-lymphocyte antigen (CTLA)-4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a FR1-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune diabetes and graft rejection) and proliferative disorders (e.g. cancer). CTLA-4 stimulatory agents may be used to up-regulate immune system to up-regulate immunodeficient disorders.
                                                                                                                   AAY93732;
                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                            AAY93732 standard; Protein; 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 2; Fig 1D; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel antibodies capable of binding cytotoxic T-lymphocyte antigen (CTLA)-4 containing specified heavy and light chain sequences, use
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Corvalan JR;
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(ABGE-)
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DB; AAA46870.
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ABGENIX INC.
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                                                                                                                                                                                                                                                                                    QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY 60
                                                                                                                                                                                                                                                                 QVQLVESGGGVVEPGRSLRLSCTASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKHY 79
                                                                                                                                                                                                           ADSAKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCARA-GLLGYFDYWGOGTLVTVSS 137
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Pred. No. 6.
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Best Local S
Matches 107
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                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                Novel antibodies capable of binding cytotoxic T-lymphocyte antigen (CTLA)-4 containing specified heavy and light chain sequences, use for treating, e.g. immune disorders -
                                                                                                                                                                                                                                                                                                                                                                      Claim 2; Fig 22m; 157pp; English
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107; Conserv
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                   ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVEYCARAPNYIGAFDVWGQGTMVTVSS 119
                                                  QVQLVESGGGVVEPGRSLRLSCTASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKHY
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                                                                                                                          89.5%;
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                                                                                                                          Score 566.5; DB 2
Pred. No. 6.5e-44;
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                                                                                                           Mismatches
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AAY82629
ID AAY8
XX AAY8
AC AAY8
XX O2-A
XX Umaa
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Hype
KW frac
KW seps
XX seps
XX hypo
XX hypo
                                     Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva;
                                                                                                                                                                             AAY82629
                                                                                                             Human
                                                                                                                                                                                                       AAY82629 standard; Protein; 143
                                                                                                             PTHrp
                                                                                                            monoclonal antibody clone 5B12-16-12
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NO:42.

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inflammatory response syndrome;

cytostatic; antiinflammatory.

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RESULT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes the parathyroid hormone related protein (PTHrP). The monoclonal antibudy its fragments, following the stimulation of PTHrP has the following properties: (a) inhibits intracellular elevation of caMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal metastasis, pain, actuare, cachexia, diseases of teeth, periodontal metastasis, pain, sepsis, systemic inflammatory response syndrome
                            JP11127855-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphataemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHrP monoclonal antibody clone protein sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A human monoclonal antibody to parathyroid hormone related protein. - useful for treating hypercalcemia, rheumatoid arthritis, cancer of bone including metastasis, and pain
                                                                                   Monoclonal antibody; H chain; heavy chain; anti-human; TNF-alpha; tumour necrosis factor; light chain; L chain.
                                                                                                                                 Anti-human TNF-alpha monoclonal antibody H-chain protein
                                                                                                                                                                 05-AUG-1999
                                                                                                                                                                                               AAY08598;
                                                                                                                                                                                                                             AAY08598 standard; Protein; 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 32; Page 76-77; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-OCT-1998;
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)B; AAA13939.
                                                                                                                                                                                                                                                                                                         140
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                                                                                                                                                                                                                                                                                                         TVSS
                                                                                                                                                                                                                                                                                                                                                                    VDSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARHSSGWYEDYYYGMDVWGQGTTV
                                                                                                                                                                                                                                                                                                                                                                                                                                QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                                                                                                                                                                                                                                                                                                                                       TVSS 119
                                                                                                                                                                                                                                                                                                                                                                                               ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCAR----APNYIGAFDVWGQGTMV 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                             QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          143 AA;
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                                                                                                                                                                 (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98JP-0188196
98JP-0196729
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.2%;
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Pred. No. 2.9e-44;
2; Mismatches 8
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18-MAY-1999

Claim 2; Fig 1A; 157pp; English

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RESULT 9
AAY93701
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Best Local Similarity
                 Novel antibodies capable of binding (CTLA)-4 containing specified heavy for treating, e.g. immune disorders
                                                                                                                                                                                                                                                                                                                                                                                                    AAY93701;
                                                                    WPI; 2000-442647/38.
N-PSDB; AAA46864.
                                                                                                                                            (PFIZ )
(ABGE-)
                                                                                                                                                                                                                                                                                                                              Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune system;
                                                                                                                                                                                                                                                                                                                                                                              03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention describes novel recombinant anti-human TNF-alpha human monoclonal antibody consisting of a heavy (H) chain and a light (L) chain. The recombinant anti-human TNF-alpha human monoclonal antibody can be produced stably in a high purity and in a large amount.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-350318/30.
N-PSDB; AAX77407.
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                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                      hyperimmunity
proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                        Corvalan
                                                                                                                     Hanson
                                                                                                                                                                                                                                                       WO200037504-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                            AAY93701
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n JR,
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                                                                                                                                          PFIZER INC.
ABGENIX INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                                                                                                                                                                                                                                                                                                                                                                                                                           standard; Protein; 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADSVKGRFTISRDNSKVTLYLOMNSLRAEDTAVYYCAKDSGDL-AFDIWGQGTMVTVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     223 AA;
                                                                                                                    Neveu MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                      disorder; autoimmune disease; diabetes; graft disorder; cancer; immunodeficient disorder.
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91.6%;
                                                                                                                    Mueller EE,
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Pred. No. 5.7e-44;
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                                cytotoxic T-lymphocyte antigen and light chain sequences, useful
                                                                                                                    Hanke
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                                                                                                                                                                                                                                                                                                                 rejection;
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RESULT 10
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Best Local S
Matches 106
The present sequence represents a heavy chain of an antibody of the invention. The antibody is directed cytotoxic T-lymphocyte antigen (GTLA)-4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a FR1-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions.
                                                                                                                       Novel antibodies capable of binding (CTLA)-4 containing specified heavy for treating, e.g. immune disorders
                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                  23-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                            29-JUN-2000:
                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                           proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune system; hyperimmunity disorder; autoimmune disease; diabetes; graft reject
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a heavy chain of an antibody of the invention. The antibody is directed cyclotoxic T-lymphocyte antigen (CTLA)-4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a R1-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune disease, diabetes and graft rejection) and proliferative disorders (e.g. cancer). CTLA-4 stimulatory agents may be used to up-regulate immune system to up-regulate immunodeficient disorders.
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DB; AAA46890.
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106; Conserv
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ABGENIX INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCARAPNYIGAFDVWGQGTMVTVSS 119
                                                                                                                                                                                                                                   Neveu MJ,
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                                                                                                  22c;
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Pred.
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No. 1.5
                                                                                                                                 cytotoxic T-lymphocyte antigen and light chain sequences, useful
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1.5e-43;
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Best Local S
Matches 106
The present sequence represents a heavy chain of an antibody of the invention. The antibody is directed cytotoxic T-lymphocyte antigen (CTLA)-4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a FRI-FR3 sequence encoded by a human VH3-33 family gene. The modifications are contained in CDR1, CDR2 and/or framework regions. The antibodies may be used to inhibit CTLA-4 and down-regulate the immune system to treat hyperimmunity disorders (e.g. autoimmune disease, diabetes and graft rejection) and proliferative disorders
                                                                                                                                       Claim 2;
                                                                                                                                                           Novel antibodies capable of binding cytotoxic T-lymphocyte antigen (CTLA)-4 containing specified heavy and light chain sequences, usefor treating, e.g. immune disorders -
                                                                                                                                                                                                                   N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           key
Peptide
                                                                                                                                                                                                                                                           Corvalan
                                                                                                                                                                                                                                                                                                 (PFIZ )
(ABGE-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune shyperimmunity disorder; autoimmune disease; diabetes; graft proliferative disorder; cancer; immunodeficient disorder.
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DB; AAA46892.
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ABGENIX INC.
                                                                                                                                       Fig 22e;
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                                                                                                                                    157pp; English
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               This invention describes novel antibodies that immunospecifically bind to B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNP) super family and induces B cell proliferation and differentiation. The antibodies of the invention have cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be administered to treat diseases associated with aberrant BlyS expression
                                                                                                                                                                                                                                                                                                                             Claim 1; Page 2215-2216;
                                                                                                                                                                                                                                                                                                                                                                         Antibodies against B Lymphocyte Stimulating the diagnosis and treatment of cancers and i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ruben SM, Barash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CAMB-)
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17-OCT-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human
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CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vaccine; cancer; immune; autoimmune disorder;
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No. 1.5
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differentiation;
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Best Local S
Matches 109
       AAU02501-AAU02635, and AAU02641-AAU02748 represent the amino acid sequences of anti-adipocyte monoclonal antibody heavy chain, light chain, and heavy chain complementarity determining regions (CRR) of the invention. The antibodies can be used in the treatment of obesity and obesity related diseases. The antibodies can be used to deliver drugs or pro-drugs directly to the fat mass of an obese patient or the antibody can be used as a therapeutic itself. Antibodies binding specifically to adipocytes can be used to activate the immune system to destroy the cells by complement mediated lysis. The antibodies may be labeled with a detectable label such as radiolabel, fluorescent or chemical group and used in methods of diagnosis in human subjects e.g. to determine the
                                                                                                                                                                               Claim 1;
                                                                                                                                                                                                           related
                                                                                                                                                                                                                     Panel of specific binding members of antibody molecules which whole adipocytes is used in the treatment of obesity and obesi
                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                            Edwards
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anti-adipocyte monoclonal antibody heavy chain,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (e.g. common variable immunodeficiency (CVID) and acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent the antibodies and fragments of the antibodies described in the method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antibody; adipocyte; heavy chain; light chain;
                                                                                                                                                                                                                                                                                                                                        (CAMB-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease;
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                                                                                                                                                                                                                                                                                                                                       CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                               Page 95; 182pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complementarity
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Pred. No. 9.9e
2; Mismatches
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jion; CDR.
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the surface of an adipocyte to

detect or

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RESULT 14
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ID ABP45
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XX ABP45
XX ABP45
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KW BLy8;
KW tumou
KW immun
KW syste
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This invention.

B Lymphocyte Stimulator (BLyS) polypeyring and induces B cell tumour necrosis factor (TNP) super family and induces B cell tumour necrosis factor (TNP) super family and induces B cell tumour necrosis factor (TNP) super family and induces B cell proliferation and differentiation. The antibodies of the invention have cytostatic, immunosuppressive, immunostimulant, immunomodulatory, antitheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLy and so may be used to detect and quantitate the presence of BLyS in the cytostation of the presence of BLyS in the cytostation and may be used in this way to diagnose disease
                                                                                                                                                                                                                       This invention describes novel antibodies that immunospecifically bind by Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the tumour necrosis factor (TNP) super family and induces B cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JUN-2000; 2000US-212210P.
17-CCT-2000; 2000US-240816P.
16-MAR-2001; 2001US-276248P.
21-MAR-2001; 2001US-277379P.
25-MAY-2001; 2001US-293499P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunosuppressive; immunostimulant; immunomodulatory; ar antiAIDS; vaccine; cancer; immune; autoimmune disorder; systemic lupus erythematosus; rheumatoid arthritis; CVII
                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 2344-2345; 3148pp;
                                                                                                                                                                                                                                                                                                                                                                                                          Antibodies against B Lymphocyte Stimulating polypeptides, useful the diagnosis and treatment of cancers and immune disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUN-2001; 2001WO-US19110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JAN-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLys; B lymphocyte stimulator; tumour necrosis factor; B cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human BLyS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABP45616 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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CAMBRIDGE ANTIBODY TO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ctor; B cell proliferation; B cell differentiation immunostimulant; immunomodulatory; antirheumatic;
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                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vaughan
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New human antibody that specifically binds | lipopolysaccharide, useful for treating or | aeruginosa infection in patients with burns

to preventing Pseudomonas s or prosthesis.-

N-PSDB;

2002-351767/38. DB; ABK48972.

Schreiber JR,

Kamboj

즛

KAMB/)

SCHREIBER KAMBOJ K K

07-SEP-2000; 2000US-230640P. 03-JAN-2001; 2001US-259472P. 07-SEP-2001; 2001WO-US28019.

The invention portion (I), t

describes an isolated human antibody or that was expressed in a non-human animal

its

antigen-binding specifically

Claim 36; Fig 9; 84pp;

English.

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Best Local :
                                                                                                                                                                                                                                                                                                                                                          Pseudomonas aeruginosa infection inhibitor; lipopolysaccharide; LPS; burn; prosthesis; cancer; cystic fibrosis; diabetes; heart disease; otitis externa; swimmer's ear; osteomyletitis; corneal ulcer; folliculitis; mastitis; pneumonia; meningitis; urinary tract infection;
                                                                                                                                                                                                                                                                                        WO200220619-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUL-2002
                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                       complementarity
                                                                                                                                                                                                                                                                                                                                                   endocarditis;
                                                                                                                                                                                                                                                                                                                                                                                                          Heavy chain variable region; antibody; antibacterial; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU79808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU79808 standard;
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                                                                                                                                                                                                                                                                                                                                                                                             Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis, immunodeficiency (e.g. common variable immunodeficiency (CVID) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              associated with aberrant expression of BLyS. They may also be administered to treat diseases associated with aberrant BLyS and activity such as cancer, immune, and autoimmune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diseases, e.g. systemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent antibodies and fragments of the antibodies described in the method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           114 MVTVSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                  variable region of s20 human antibody.
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                                                                                                                                                                                                                                                                                                                                      determining
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Pred. No. 1.2e-43;
4; Mismatches 6
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CC binds to lipopolysaccharide (LPS) of the opportunistic pathogen
CC Pseudomonas aeruginosa (PA). (I) is useful for treating or preventing PA
CC infection in patients with burns, prosthesis, cancer, cystic fibrosis,
CC diabetes, heart disease, others externa (swinmer's ear), osteomyleticis,
CC corneal ulcers, folliculitis, martitis, perumonia, meningitis, urinary
CC tract infection, endocarditis, partitis, pneumonia, meningitis, urinary
CC treat infection, endocarditis, prediction and other diseases found in
CC geriatric or immunocompromised patients. (I) is also useful for detecting
CC treat infection, endocarditis, partitis, pneumonia, meningitis, urinary
CC treat infection, endocarditis, prediction and other diseases found in
CC griatric or immunocompromised patients. (I) is also useful for detecting
CC treat infection, endocarditis, partitis, pneumonia, meningitis, urinary
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Search completed: June 3, 2003, 08:14:48
Job time: 54.6109 secs

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Result
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Listing first 45 summaries
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/cgn2_6/ptodata/1/pubpaa/BCT_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
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n2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep: *
n2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep: *
gn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep: *
gn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep: *
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426.742 Million cell updates/sec
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                        US-10-153-382-17

US-09-880-748-1109

US-10-153-382-3

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US-10-153-382-5

US-09-880-748-1519

US-09-880-748-955

US-09-880-748-912

US-09-880-748-924

US-09-880-748-924

US-09-880-748-980

US-09-880-748-980

US-09-880-748-1201

US-09-880-748-512

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US-09-848-798-20

US-09-848-798-21
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Sequence 17, Appl
Sequence 13, Appl
Sequence 3, Appli
Sequence 5, Appli
Sequence 1519, Ap
Sequence 1627, Ap
Sequence 955, Appli
Sequence 912, Ap
Sequence 91, Ap
Sequence 91, Ap
Sequence 1201, Ap
Sequence 1759, Ap
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Sequence 20, Appli
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Sequence 21, Appl
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ALIGNMENTS

RESULT 2 US-09-880-748-1109 8 뮍 F Ś S ; ORGANISM: Homo sapiens US-10-153-382-17 Sequence 1109, Application US/09880748 Publication No. US20030059937A1 GENERAL INFORMATION: Query Match Best Local : SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 17 LENGTH: 451 TYPE: PRT Sequence 17, Applica Publication No. US20 GENERAL INFORMATION: Matches APPLICANT: PFIZER PRODUCTS INC.
TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR PPLICATION NUMBER: 60/293042
PRIOR PPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39 115 VTVSS 119 ||||| 121 VTVSS 125 61 61 μ 1 QVQIVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY Similarity ADSVKGRPTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPN-----YIGAFDVWGQGTM 114 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDPRGATLYYYYYGMDVWGQGTT 120 Application US/10153382 No. US20030086930A1 Conservative 90.8%; 1; Score 575; DB 9 Pred. No. 6e-37; Mismatches DB 9; Length 451 Indels 6 Gaps 60 60

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US-10-153-382-13
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/ LENGTH: 249

/ TYPE: PRT

/ ORGANISM: Homo sapiens
US-09-880-748-1109

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 13, Application US/10153382 Publication No. US20030086930A1 GENERAL INFORMATION:
                                                                                                                                                                                  Query Match
Best Local Similarity
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES FILE REFERENCE: PC23019A CURRENT APPLICATION NUMBER: US/10/153,382
                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT FILING DATE: 2002-05-2
                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/293042 PRIOR FILING DATE: 2001-05-23
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CURRENT FILING DATE: 2001-06-15
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TYPE: PRT
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FILING DATE: 2000-10-17
APPLICATION NUMBER: 60/276,248
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/212,210
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OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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                                   ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPNYIGAFDVWGQGTMVTVSS 119
                                                                             QVQLVESGGGVVEPGRSLRLSCTASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKHY
ADSAKGRETISRDNSKVTLYLOMNSLRAEDTAVYYCARA-GLLGYEDYWGQGTLVTVSS 137
                                                                                                                   QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY 60
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                                                                                                                                                        Score 566.5; DB 9;
Pred. No. 2.8e-36;
5; Mismatches 6;
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Pred. No. 3.9e-37; ...
2; Mismatches 5;
                                                                                                                                                                                                Length 463;
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RESULT 6
US-09-880-748-1519
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                                                                                                                                                                                                                                                                Query Match
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Publication No. US20030086930A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 5
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Best Local Similarity
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Publication No. US20030086930A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILLING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39
                                                                                                                                                                                                                                                                                                                                         LENGTH: 46
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn
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TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
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CURRENT FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
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TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
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                                                                                                            61 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVFYCARAPNYIGAFDVWGQGTMVTVSS 119
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                                                                                                                                                                         1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
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Pred. No. 5.6e-36;
5; Mismatches 7
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Sequence 1519, Application US/09880748
Publication No. US20030059937A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS

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US-09-880-748-1627
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US-09-880-748-1627
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JS-09-880-748-1519
                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                            SOFTWARE: PatentIn
SEQ ID NO 1627
LENGTH: 252
                                                                            Matches 109;
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NUMBER OF SEQ ID NOS: 3239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
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                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/293,499
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PRIOR FILING DATE: 2001-05-25
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URRENT APPLICATION NUMBER: US/09/880,
URRENT FILING DATE: 2001-06-15
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ENGTH: 252
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                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/240,816
FILING DATE: 2000-10-17
APPLICATION NUMBER: 60/276,248
FILING DATE: 2001-03-16
APPLICATION NUMBER: 60/277,379
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APPLICATION NUMBER: 60/240,816
FILING DATE: 2000-10-17
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PILING DATE: 2001-03-16
APPLICATION NUMBER: 60/277,379
FILING DATE: 2001-03-21
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                                    1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY 60
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QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60
                                                                          Conservative
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                                                                            4; Mismatches
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Pred. No. 3.9e-36; 
2; Mismatches 8
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Pred. No. 4.6e-36;
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SEQ ID NO 955
LENGTH: 251
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Best Local Similarity
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Publication No.
                                                                                                                                                                                                                                                                                            -09-880-748-912
                                                      FILE REFERENCE: PF523

CURRENT APPLICATION NUMBER: US/09/880,748

CURRENT FILING DATE: 2001-06-15

PRIOR APPLICATION NUMBER: 60/212,210

PRIOR FILING DATE: 2000-66-15

PRIOR APPLICATION NUMBER: 60/240,816

PRIOR FILING DATE: 2000-10-17
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PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 2001-05
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PRIOR FILING DATE: 2000-10-17
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR FILING DATE: 2001-03-16
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CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-06-15
                                    PRIOR APPLICATION NUMBER: 60/276,248
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                  2001-03-16
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60/277,379
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Pred. No. le-35;
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US-10-153-382-9
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                                                                                                                                           Sequence 924, Application Publication No. US200300 GENERAL INFORMATION: Ruben et al.
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APPLICANT: PFIZER PRODUCTS INC.

TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES

FILE REFERENCE: PC23019A
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local &
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SEQ ID NO 912
LENGTH: 249
TYPB: PRT
ORGANISM: Homo sapiens
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS FILE REPERENCE: PF523
CURRENT ELECATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
PRIOR,APPLICATION NUMBER: 60/212,210
PRIOR PILING DATE: 2000-06-15
PRIOR PILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
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Publication No. US20030086930A1
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CURRENT FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
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SOFTWARE: PatentIn Ver. 2.1
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PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 3239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT ORGANISM: Homo sapiens
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                                                                                                                                                                                   Application US/09880748 o. US20030059937A1
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Pred. No. 1.2e-35;
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US-09-880-748-988
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US-09-880-748-988
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SEQ ID NO 988
LENGTH: 252
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Publication No. US20030059937A1
GENERAL INFORMATION:
APPLICANT: Ruben et al.
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Best Local Similarity
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SOFTWARE: PatentIn Ver. 2.
SEQ ID NO 924
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: PF523
CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
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PRIOR APPLICATION NUMBER: 60/240,816
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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PRIOR APPLICATION NUMBER: 60/293,499
PRIOR FILING DATE: 2001-05-25
                                                                                                                                                                                                                                                                                             TYPE: PRT
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114 MVTVSS 119
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                                                       ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCARAP------NYIGAFDVWGQGT 113
                                                                                                                                       QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
                            ADSVKGRFTVSRDNSKNTLYLOMNSLRAEDTAVYYCARSHYDILTGLNY-WYFDLWGRGT
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Pred. No. 1.6e-35;
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US-09-880-748-1201
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LENGTH: 252
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Publication No. US20030059937A1
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Best Local Similarity
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                                                                                                                                                                                                                                                                                             APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind
FILE REFERENCE: PF523
                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
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CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-06-15
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                                                           APPLICATION NUMBER: 60/293,499
                                                                            FILING DATE: 2001-03-16
APPLICATION NUMBER: 60/277,379
FILING DATE: 2001-03-21
                                                                                                                                       APPLICATION NUMBER: 60/240,816
FILING DATE: 2000-10-17
APPLICATION NUMBER: 60/276,248
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120 LVTVSS 125
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Patentin Ver.
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85.5%;
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Pred. No. 2.3e-35;
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                                                                                                                                                                                                                               ; TYPE: PRT; ORGANISM: Homo sapiens US-09-880-748-512
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; ORGANISM: Homo
US-09-880-748-1759
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SEQ ID NO 512
LENGTH: 249
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Best Local Similarity 85.0
Conservative
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Best Local Similarity
Matches 107; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/276,248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRICANT: Ruben et al.
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/293,499
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/240,816 FILING DATE: 2000-10-17
                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 2001-03-16
                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/277,379
120
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                         113 TMVTVSS 119
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TMVTVSS 126
                                                      ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAKDGYYDILTGYSYYG-MDVWGQG
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Pred. No. 2.7e-35;
3; Mismatches 6;
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Pred. No. 2.3e-35;
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    seq length: 0 seq length: 2000000000
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633
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(without alignments)
193.728 Million cell updates/sec
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

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Gapop 10.0 , Gapext 0.5
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(c) 1993 - 2003 Compugen Ltd.
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                                          US-08-331-398A-46
US-08-751-397B-46
US-08-759-804A-46
US-09-240-274-8
US-09-240-274-21
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US-09-240-274-24
US-09-240-274-24
US-09-240-274-14
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510.5	513.5	515	515	515	515.5	515.5	516	516	516.5	516.5	516.5	516.5	517.5	517.5	518.5	520	521
80.6	81.1	81.4	81.4	81.4	81.4			81.5			81.6						
124	124	127	127	125	123	123	127	116	126	126	126	126	126	126	128	120	117
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US-09-240-274-5	US-09-240-274-4	US-09-240-274-139	US-09-240-274-11	US-09-240-274-151	US-08-476-349A-94	US-08-478-039-94	US-09-240-274-19	US-08-211-202-141	US-09-240-274-148	US-09-240-274-147	US-09-240-274-15	US-09-240-274-14	US-09-240-274-17	US-09-240-274-16	US-09-240-274-142	US-08-652-558-39	US-09-025-769B-24
Sequence 5, Appli	Sequence 4, Appli	Sequence 139, App	Sequence 11, Appl	151,	•	Sequence 94, Appl		Sequence 141, App	•	, 1	Sequence 15, Appl	14,	17,	16,	142	Sequence 39, Appl	

ALIGNMENTS

(415) 57 (415) 67 R SEQ II RACTERIS 19 amino no acid SS: linear E: prot	PAPLICATION NUMBER: US 07/767,331 FILING DATE: 30-SEP-1991 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990 ATTORNEY/AGENT INFORMATION: NAME: Hunter, Tom REGISTRATION NUMBER: 38,498 REFERENCE/DOCKET NUMBER: 015280-126110US TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECHONGE: (415) 543-9600	ne Market Plaza, Steuart Francisco Lifornia USA 5-1492 5-1492 5-1492 5-1492 6-1492 5-1492 5-1492 6-1	y Fusion
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86.7%; 89.1%;

Score 549; DB 2 Pred. No. 4e-49;

DB 2;

Length 119;

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OTHER INFORMATION:
OTHER INFORMATION:
US-08-334-397B-46
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Matches 106; Conservative
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NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTER READABLE FORM:
COMPUTER READABLE FORM:
Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 30-SEP-1991
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APPLICATION NUMBER: US 07/596,289
PILING DATE: 12-0CT-1990
                                                                                                          MOLECULE TYPE:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                    ELECOMMUNICATION INFORMATION:
                                                    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 38,498 REFERENCE/DOCKET NUMBER: 01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0 FILING DATE: 28-OCT-1994
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OPERATING SYSTEM: PC-DOS/MS-DOS
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LOCATION:
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One Market Plaza, Steuart Street Plaza
                                                                       Protein
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Specific Antibody Fragments, Fusion Proteins,
Thereof
               /note= "Human fetal immunoglobulin
56P1'CL Variable Heavy chain (V-H)"
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56P1'CL Variable Heavy chain (V-H)"
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RESULT 3
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                                                                                            MOLECULE TYPE:
                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen L.
REGISTRATION NUMBER: 32,
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
FILING DATE: 30-SEP-
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STREET:
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   OTHER INFORMATION:
OTHER INFORMATION:
                                       LOCATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                    NAME/KEY: Protein
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                                                                                                                            STRANDEDNESS
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                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990
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                                                                                                             COPOLOGY:
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Two Embarcadero Center, Eighth Floor
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FitzGerald, David J.
Brinkmann, Ulrich
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/note= "Human fetal immunoglobulin
56P1'CL Variable Heavy chain (V-H)"
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Best Local Similarity

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Query Match
Best Local Similarity 89.7
Matches 106; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/227,69
                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 543-9600
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NAME: Weber, Ellen Lauver
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                                                                                                                        NAME/KEY:
LOCATION:
                                                                                                          COTHER INFORMATION:
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IOR APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                        INFORMATION:
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PADLAN, Eduardo
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                     86.7%;
                                                                                       /note= "Human fetal immunoglobulin
56Pl'CL VH region"
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                   Score 549; DB 4
Pred. No. 4e-49;
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SEQ ID NO 8
                                                             SEQ ID NO 20
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                                                                                                                                                                                                                                                                                                                                                                             Patent No.
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                                                                                    NUMBER OF SEQ ID NOS: 2
SOFTWARE: PatentIn Ver.
                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
                                                                                                                                                                                                                                                           APPLICANT: Siegel, Donald L. TITLE OF INVENTION: Rh (D)-BINDING PROTBINS AND MAGNETICALLY ACTIVATED CELL TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF FILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8, Applic
Patent No. 6255455
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CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
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ORGANISM: Homo sapiens
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                                           ENGTH:
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TLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
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Pred. No. 4.2e-49;
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; OTHER INFORMATION: anti-Rh(D) chain D15
US-09-240-274-20
             GENERAL INFORMATION:
APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
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                                                                                                                Sequence 22, Application US/09240274 Patent No. 6255455
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Best Local
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CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
CURRENT APPLICATION NUMBER: US/09/240,274
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SOFTWARE: PatentIn Ver. 2
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TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
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ORGANISM: Homo sapiens
FEATURE:
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Pred. No. 4.2e
8; Mismatches
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Pred. No. 4.2e-49;
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4.2e-49;
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SOFTWARE: Patentin Ver. 2
; SEQ ID NO 24
; LENGTH: 125
; TYPE: PRT
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                                                                                                                                                                                                         Matches 105;
                                                                                                                                                                                                                                          Query Match
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LENGTH: 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
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EARLIER FILING DATE: 1996-10-11
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TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL-
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
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OTHER INFORMATION: anti-Rh(D) chain
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EARLIER FILING DATE: 1998-04-10
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121
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VTVSS 125
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Pred. No. 8.5e-49;
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Pred. No. 4.2e-49;
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JS-07-942-245-35
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; OTHER INFORMATION: anti-Rh(D) chain D03
US-09-240-274-9
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NUMBER OF SEQ ID NOS: 224
SOFTWARE: PatentIn Ver. 2.0
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CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
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ORGANISM: Homo sapiens
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                                                                     CURRENT APPLICATION DATA:
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                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: HP 9000/700 Workstation
OPERATING SYSTEM: UNIX
                                                                                                                                               MEDIUM TYPE: Floppy
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                                      APPLICATION NUMBER: FILING DATE: 09-SE
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                                                                                                                                                                                    RY: United States 20037-3202
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2100 Pensylvania Avenue, N.W
CATION INFORMATION
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09-SEP-1992
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83.2%;
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Michael A.
Braydon C.
SURFACE RESIDUE VENEERING OF RODENT
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Pred. No. 1.1e-48;
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; OTHER INFORMATION: anti-Rh(D) chain D18
US-09-240-274-23
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SEQ ID NO 23
Sequence 149, Application US/09240274 Patent No. 6255455
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Best Local Similarity
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CURRENT FILING DATE: 1999-01-29
ENALIER APPLICATION NUMBER: 60/081,380
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INFORMATION FOR SEQ ID NO:
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ITLE OF INVENTION: Rh (D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL

ITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF

ILE REFERENCE: 09596-42U2
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Pred. No. 2.8e-48;
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Pred. No. 1.3e-48;
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GENERAL INFORMATION:
APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL

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; OTHER INFORMATION: anti-Rh(D) chain D31
US-09-240-274-26
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; PEATURE:
; OTHER INFORMATION: anti-Rh(D) antibody clone SH39
US-09-240-274-149
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Best Local Similarity
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Best Local Similarity
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LENGTH: 126
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Sequence 26, App.
No. 6255455
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CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
                                                                                                                                                                                                                                                                                                     LENGTH: 126
TYPB: PRT
ORGANISM: Homo sapiens
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ITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
ITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
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OF SEQ ID NOS: 224
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                                                              ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVFYCARAPN-----YIGAFDVWGQGT 113
                                                                                                                                        QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY
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MVTVSS 119
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Pred. No. 6.3e-48;
8; Mismatches 8
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Pred. No. 5e-4
5; Mismatches
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ORGANISM: Homo sapiens
FEATURE:
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CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
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TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
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EARLIER APPLICATION NUMBER: 60/028,550
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C;Species: Homo saplens (man)
C;Date: 19-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 21-Jan-2000
C;Accession: $16823
R;Blaison, G.; Kuntz, J.L.; Pasquali, J.L.
Bur. J. Immunol. 21, 1221-1227, 1991
A;Title: Molecular analysis of V(kappa)III variable regions of polyclonal rheumatoid A;Reference number: $16823; MUID:91243737; PMID:1903706
A;Accession: $16823
A;Status: preliminary; translation not shown
A;Molecula type: mRNA
A;Residues: 1-87 cBLA>
A;Cross-references: EMBL:X54821
C;Keywords: heterotetramer; immunoglobulin fomology cIMM>
F;7-82/Domain: immunoglobulin homology <IMM>
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A;Title: Structural and idiotypic characterization of the L chains of human IgM A;Reference number: A30601; MUID:89215279; PMID:2496160
A;Accession: I30607
A;Status: preliminary
A;Molecule: type: protein
A;Residues: 1-83 <GON>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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24 RASOSVSSSYLA
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91.7%;
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S46375
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C275US4
C275US4
C31817
S41816
S41816
S16843
S16842
S37524
                                 Score 49; DB 2;
Pred. No. 0.0065;
1; Mismatches
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Pred. No. 0.0062;
1; Mismatches
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                                 A; Cross-references: EMBL: X73852
                                                                                                                                       A; Title: Cloning of a human autoimmune resp
A; Reference number: S67940; MUID:92314301;
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                                                                                                                                                                                                                                            Ig kappa chain V region, subgroup III (clone MH52) - human (fragment) C;Species: Homo sapiens (man) C;Date: 19-Mar-1997 #Bequence_revision 09-May-1997 #text_change 20-Mar-1998
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C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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A; Residues: 1-89 < WAG>
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                                                        Molecute type: mRNA
Residues: 1-91 <HEX>
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                                                                                                                                                                                    ;Hexham, J.M.; Furmaniak, J.; Pegg, C.; utoimmunity 12, 135-141, 1992
                                                                                                                         Accession: S67940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Molecule type: mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;Rlein, U.; Kueppers, R.; Rajewsky, K.
ubmitted to the RMBL Data Library, September 1993
Description: Human IgM(+)IgD(+) cells, the major B cell
Reference number: 837501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Title: V-kappa gene segments rearranged in chronic lymphocytic leukemia are;Reference number: S34076; MUID:93170387; PMID:8436174;Accession: S34096
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;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 21-Jan-2000
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mmunol. 23, 391-397, 1993
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         immunoglobulin V region; immunoglobulin homology
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Pred. No. 0.0068;
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Pred. No. 0.0067;
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                                                                                                                                                           RESULT 8
S37517
R;Klein, U.; Kueppers, R.; Rajewsky, K. submitted to the EMBL Data Library, September 1993 A;Description: Human IgM(+)IgD(+) cells, the major B
                                                                 19 kappa chain V region (V-kappa 3) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
C;Accession: S37517
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A;Cross-references: EMBL:Z26613; NID:g405680; PIDN:CAA81366.1; PID:g405681 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
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S37519
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A; Residues: 1-92 < KLE>
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S37513
                                                                                                                                                                                                                                                                                   R;Klein, U.; Kueppers, R.; Rajewsky, K. submitted to the EMBL Data Library, September 1993 A;Description: Human IgM(+)IgD(+) cells, the major
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: S37513
R;Klein, U.; Kueppers, R.; Rajewsky, K.
submitted to the EMBL Data Library, September 1993
submitted to the major
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C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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C;Species: Homo saptens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
C;Accession: S37519
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A;Reference number: S37501
A;Accession: S37513
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-92 <KLE>
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RASQSVSSSYLA 18
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                                                                   Score 49; DB 2;
Pred. No. 0.0069
1; Mismatches
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Pred. No. 0.0069;
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Pred. No. 0
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R;Klein, U.; Kueppers, R.; Rajewsky, K.
submitled to the EMBL Data Library, September 1993
A;Description: Human IgM(+) IgD(+) cells, the major B cell subset in the peripheral blood A;Reference number: S37501
A;Accession: S37518
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S37518
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C;Species: Homo sapiens (man)
C;Sdete: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
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C;Species: Homo sapiens (man)
C;Sate: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
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A;Molecule type: mRNA
A;Residues: 1-92 <KLE>
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Matches
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Best Local (
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Residues: 1-92 <KLE>
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Residues: 1-92 <KLE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
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                                   1 RASQSVSSSFLA 12
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                                                                                           Similarity
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RASQSVSSSYLA 18
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                                                                             Conservative
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91.7%;
                                                                                           94.2%;
91.7%;
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Pred. No. 0.0069;
1; Mismatches
                                                                                           Score 49; DB 2;
Pred. No. 0.0069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 49; DB 2; Length 92
Pred. No. 0.0069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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                                                                        Gaps
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RESULT 11

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R;Goni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson, J. Immunol. 142, 3158-3163, 1989
A;Title: Structural and idiotypic characterization of the L chains of human IgM A;Reference number: A30601; MUID:89215279; PMID:2496160
A;Accession: A30601
                                                           C; Superfamily: :
C; Keywords: hete
F; 16-91/Domain:
                                                                                                                          A; Molecule type: protein A; Residues: 1-96 < GON>
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S37528
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                                                                                                                                                                A;Status: preliminary
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C;Species: Homo sapiens (man)
C;Date: 06-Jan-1994 #sequence_revision 26-May-1995 #text_change
                                                                                                                                                                                                                                                                                                                                 Ig kappa chain V-III region (Kv325) - human (fragment)
C;Species: Homo варіепв (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-93 < KLE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Klein, U.; Kueppers, R.; Rajewsky, K. submilted to the EMBL Data Library, Sept. A;Description: Human IgM(+)IgD(+) cells, A;Reference number: S37501
A;Accession: S37528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-93 < KLE>
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A;Description: Human IgM(+)IgD(+) cells, the major B cell subset
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary
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C;Species: Homo sapiens (man)
                                                                             Superfamily: immunoglobulin V region; immunoglobulin homology; Keywords: heterotetramer; immunoglobulin
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                       Species: Homo sapiens (man)
Date: 29-Jun-1989 #sequence_revision
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Best Local
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Best Local Similarity
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                                                           immunoglobulin homology
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  94.2%;
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91.7%;
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Pred. No.
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  Score 49;
Pred. No.
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Pred. No. 0.007;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                         29-Jun-1989 #text_change 21-Jan-2000
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                                                           <IMM>
  ; DB 2;
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                   Length 96;
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C.Species: Homo sapiens (man)
C.Date: 17-Apr-1993 #8equence_revision 17-Apr-1993 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Map position: 2p12-2p11
(Complex: An immunoglobulin heterotetramer subunit consists of two identical light (kay) and isulfide bonds. In some cases, such as IGA and IGM, the subunits associate into lighter family: immunoglobulin tomology region; immunoglobulin homology (Keywords: heterotetramer; hybridoma; immunoglobulin region).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                  ;Accession: PH0964;
;Martin, T.; Duffy, S.F.; Carson, D.A.; Kipps, T.J.
Exp. Med. 175, 983-991, 1992
;Title: Evidence for somatic selection of natural autoantibodies;
Reference number: PH0952; MUID:92202880; PMID:1552291
                                              Query Match
Conservation Conservation
                                                                                                                                                        33-48/Region:
49-54/Region:
55-87/Region:
                                                                                                                                                                                                                                                                                                                                                                             Status: nucleic
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Best Local Similarity 91.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene: GDB:IGKV3
Cross-references: GDB:136266
                                                                                                                                                                                                                                                                                                                                                     Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                      Accession: PH0964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    kappa chain precursor V-III region (NG9) - human (fragment)
Species: Homo sapiens (man)
Date: 03-Aug-1984 #sequence_revision 03-Aug-1984 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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Residues: 1-100 <BEN>
Note: the sequence was determined from the germline gene
Comment: This gene was isolated from the NG9/9.1 hybridoma.
                                                                                                                                                                                                                                                                                                                                        Residues:
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-100/Product: Ig kappa chain V-III region (NG9) #status predicted <MAT>
10-95/Domain: immunoglobulin homology <IMM>
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                                                                                                                                                                                                                  4-89/Domain: immunoglobulin homology <IMM>
2-32/Region: complementarity-determining 1
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4-89/Domain: immunoglo
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1, RASQSVSSSPLA 12
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                                                                                                                            complementarity-determining 3
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                                                                                                                                                                                                                                                                                                                                                                        acid sequence not shown
                                                                94.2%;
91.7%;
                                       Score 49; DB 2; Length 104; Pred. No. 0.0079; Indels
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Db 22 RASQSVSSSYLA 33

Search completed: June 3, 2003, 08:22:40
Job time: 2:17065 secs

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Title:
Perfect score:
Sequence:
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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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MEDLINE=72188439; PubMed=5027703;

Suter L., Barnikol H.U., Watanabe S., Hilschmann N.;

Suter L., Barnikol H.U., Watanabe S., Hilschmann N.;

"Rule of antibody structure. The primary structure of a monoclonal immunoglobulin L-chain of kappa-type, subgroup 3 (Bence-Jones protogram). IV. The complete amino acid sequence and its significance for Ti). IV. The complete amino acid sequence and its significance for Ti).
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Kipps T.J., Tomhave E., Chen P.P.,
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I- MISCELLANEOUS: THE C REGION OF THIS CHAIN HAS THE INV (3) MARKER
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SXP. Med. 167:840-852(1988).

DISEASE: THE PROTEIN IS ONE OF THE SURFACE IMMUNOGLOBULIN M

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                                                                                                                                                                                                         Score 49;
Pred. No.
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FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
                                                                                                                                                                                                                                                               JK1 SEGMENT.
BY SIMILARITY
                                                                                                                                                                                                                                                                            COMPLEMENTARITY-DETERMINING-3.
JK1 SEGMENT.
                                                                                                                                                                                                                                                                                                   FRAMEWORK-3
  Catarrhini; Hominidae;
              Craniata; Vertebrata; Euteleostomi;
                                                                                            PRT;
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                                                                                                                                                                                                                                          7395528EA2BB74D6
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CHRONIC LYMPHOCYTIC
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P01624;
                                                                                                                                                                                                                                                                                                                      DISULFID NON_TER
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
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PIR, A01897, KAHUPM.
HSSP; P80362; IWTL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klapper D.G., Capra J.D.;
"The amino acid sequence of the variable regions of the light chains from two idiotypically cross reactive IgM anti-gamma globulins.";
Ann. Immunol. (Paris) 127C:261-271(1976).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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16-OCT-2001
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SMART; SM00406; iGv; 1.
Immunoglobulin V region.
DISULFID 23 89
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InterPro; IPR003596; Ig_v.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=76276460; PubMed=60899;
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; P80362; 1WTL.
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10; Conservative
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                                                                   RASQSVSSSFLA 12
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IPR003596; Ig_v.
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(Rel. 01, Last sequent)
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ain V-III region POM.
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                                                                                                                                                                                                                                                                                    11922 MW;
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75.0%;
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                                                                                                                                      Score 45; DB Pred. No. 0.02 3; Mismatches
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                                                                                                                                                                                                                                                                                    62821DDC6A8ABA86 CRC64;
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RESULT 7 KV3J_HUMAN

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KV3E_HUMAN
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Matches 10
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NON TER
SEQUENCE
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SEQUENCE.

MEDLINE=82046598; PubMed=6794615;

Andrews D.W., Capra J.D.;

"Amino acid sequence of the variable regions of light chains from two idiotypically cross-reactive human IgM anti-gamma-globulins of the Wa
                                                                                                                                       21-JUL-1986
21-JUL-1986
15-JUL-1999
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the European Bioinformatics Institute.
use by non-profit institutions as 1
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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P04434;
                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
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PIR; A01901; K3HUVH.
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13-AUG-1987 (Rel. 05, Last sequence update)
15-AUL-1999 (Rel. 38, Last annotation update)
Ig kappa chain V-III region VH precursor (Fragment)
                                                                         NCBI_TaxID=9606;
                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                       KV3E_HUMAN
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                                                                                                                                                                                                                                                                              1 RASOSVSSSFL
                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                                                                                                      116
116 AA;
                                                                                                                          (Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
in V-III region WOL.
                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                             (Rel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               V region;
                                                                                                                                                                                          STANDARD;
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>116
43
55
70
77
                                                                                      Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                   109
116
601
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                                                                                                                                                                                                                                                                                                                                                         12757 MW;
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                                                                                                                                                                                                                                                                                                       Score 45; DB
Pred. No. 0.02
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                             IG KAPPA CHAIN V-III REGION VH
FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
                                                                                                                                                                                                                                                                                                                                                                                 FRAMEWORK-3.
COMPLEMENTARITY-DETERMINING-3
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                        COMPLEMENTARITY-DETERMINING-2
                                                                                                                                                                                                                                                                                                                                                                                                                                   FRAMEWORK-2
                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo
                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                         51CD55BA53B21929 CRC64;
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                                                                                                                                                                                                                                                                                                                    DB 1;
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RESULT 10
RV3V MOUSE
ID -KV3V
AC PO167
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P01674;
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21-JUL-1986
15-JUL-1999
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NON TER
SEQUENCE
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Pfam; PF00047; ig; 1.

SMART; SM00406; IGv; 1.

Immunoglobulin V region; Bence-Jones protein.
23 89 BY SIMILARITY.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
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Milstein C.;
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21-JUL-1986 (Rel. 01, Last seque
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15-JUL-1999 (Rel. 38, Last annot
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                                     Mus musculus
                                                                    Ig kappa chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KV3A_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of Bence Jones
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P01619;
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Biochemistry 20:5816-5822(1981).
-'- MTSCELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGM WITH ANTI-GAMMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The basic sequences of immunoglobulin k I Bence Jones proteins Rad, Fr4 and B6. 7BS Lett. 2:301-304(1969).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ig kappa chain V-III
Homo sapiens (Human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NON_TER
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HSSP; P80362; 1WTL.
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8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                            RASQSVSSSFLA 12
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IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PR003006;
                                                 (Rel. 01, Created)
(Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
ain V-III region PC 2154.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11635 MW;
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Last annotation updat
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Pred. No. 0.14;
1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 39; DB 1;
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6.":
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   Euteleostomi;
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RESULT 11
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NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                        01-JAN 1988 (Rel. 06, Created)
01-JAN-1988 (Rel. 06, Last sequence update)
15-JTL-1999 (Rel. 38, Last annotation update)
Ig kappa chain V-III region IARC/BL41 precursor.
                                                                         EMBL; Z00021; CAA77316.1; -. PIR; A01899; K3HU41.
                                                                                                                                                   This SWISS-PROT entry is copyright. It is produbetween the Swiss Institute of Bioinformatics
                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=86041852; Klobeck H.G., Mein
                                                                                                                                                                                                                                                                                                                                    KV3K_HU
P06311;
                                                                                                    or send an email to license@isb-sib.ch)
                                                                                                                        modified and this statement
                                                                                                                                                                                  Nucleic Acids Res. 13:6499-6513(1985).
                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                           interPro; IPR003006; Ig_MH
InterPro; IPR003596; Ig_v.
                                                               PIR; A01899; K3HU41.
HSSP; P01607; 1REI.
                                                                                                               entities requires a license agreement
                                                                                                                                            the European Bioinformatics Institute.
                                                                                                                                                                                                     "Human immunoglobulin
                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diversity."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=79073152; PubMed=103003;
Weigert M., Gatmaitan L., Loh E., Schilling J., Hood L.E.;
"Rearrangement of genetic information may produce immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nature 276:785-790(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
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HSSP; P80362; 1WTL.
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P01680;

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21-UUL-1986 (Rel. 01, Created)

21-UUL-1986 (Rel. 01, Last sellow)

15-UUL-1999 (Rel. 38, Last and Last sellow)

15-UUL-1999 (Rel. 38, Last and Last sellow)

15-UUL-1999 (Rel. 38, Last and Last sellow)

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DOMAIN
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InterPro: IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig kappa chain V-IV region S107B precursor.
Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                        Kwan S.-P., Max E.E., Seidman J. "Two kappa immunoglobulin genes Cell 26:57-66(1981).
                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                   modified and this statement is not removed. entities requires a license agreement (See
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les 8; Conser
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Pred. No.
                                                                                              IG KAPPA CHAIN V-IV REGION S107B FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
                        FRAMEWORK-3.
COMPLEMIARITY-DETERMINING-3.
FRAMEWORK-4.
BY SIMILARITY.
                                                                       FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
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E4BB73072DCF6BE4 CRC64;
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PIR; A01900; K3HUVG.
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"Immunoglobulin genes of different subgroups are interdigitated within the VK locus.";
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SMART; SM00406; IGv;
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Mammalia; Eutheria; Primates;
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P04433;
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V-III region VG precursor (Fragment)
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Pred. No.
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COMPLEMENTARITY-DETERMINING-1.
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16-OCT-2001 (Rel. 40, Last annotation update)
Oxygen-evolving enhancer protein 1, chloroplast precursor
Oxygen-evolving system of photosystem II)

(OEC 33

(33 kDa

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RESULT 15
GGPI LACLA
ID GGPI L
AC P81181
DT 15-JUN
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DT 16-OCT
OC Bacter
OX NCBI_T
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15-JUL-1998
16-OCT-2001
15-JUN-2002
    MEDLINE=21235186; PubMed=11337471;
Bolotin A., Wincker P., Mauger S., Jaillon O., Malarme K.,
Weissenbach J., Ehrlich S.D., Sorokin A.;
"The complete genome sequence of the lactic acid bacterium Lactococcus
lactis ssp. lactis III403.";
                                                                                                                                                                                 Glucose-6-phosphate
18omerase) (PGI) (Ph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-s
                                                                                 SEQUENCE FROM N.A.
STRAIN-IL1403;
                                                                                                                                      Lactococcus lactis (subsp. Bacteria; Pirmicutes; Lacto
                                                                                                                         NCBI_TaxID=1360;
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PIR; S16586; S16586.
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STRAIN=cv. Bintje; TISSUE=Leaf;
STRAIN=cv. Bintje; TISSUE=Leaf;
MEDLINE=91329725; PubMed=1840688;
Van Spanje M., Dirkse W.G., Nap J.P., Stiekem
'Isolation and analysis of cDNA encoding the
of the oxygen-evolving complex of potato.";
Plant Mol. Biol. 17:157-160(1991).
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids I; Solanales; Solanaceae; Solanum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chylakoid; Membrane; Manganese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Photosynthesis, Photosystem II; Chloroplast; Transit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - I - SIMILARITY: BELONGS TO THE PSBO FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=4113;
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SUBCELLULAR LOCATION: Chloroplast thylakoid membrane; associated with the photosystem II complex.
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333 AA;
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(Rel. 40, Last sequence update)
(Rel. 41, Last annotation update)
hosphate isomerase (EC 5.3.1.9) (G
(PGI) (Phosphohexose isomerase) (F
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OXYGEN-EVOLVING
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Pfam; PF00342; PGI;
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HSSP; P13376; 2PGI.
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Nomura M., Nakajima I., Matsuzaki M., Kimoto H.,
"The N-terminal sequence of Lactbooccus lacting
                                                                                                                                                                                                                                                                                                                                         the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    isomerase purified by affinity chromatography
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completed: June me : 2.1058 secs
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CATALYTIC ACTIVITY: D-Glucose 6-phosphate
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424
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1 RASQSVSSSFLA 12
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08zsp5 pyrobaculum
09zn0 arabidopsis
09pz28 xestia c-ni
099wr2 staphylococ
09iw3 pseudorabie
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Q9ul78 homo sapien
Q9lr07 arabidopsis
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; 1g; 1.
SMART; SM00406; IGv; 1.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Ol-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Ol-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin kappa chain variable
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AF035028; AAD56264.1; -.
1 RASQSVSSSFLA 12
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24 RASQSVSSSYLA 35
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109 AA,
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Pred. No. 0.01;
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Q9LR07;
01-OCT-2000 (TrEMBLrel, 1)
01-OCT-2000 (TrEMBLrel, 1)
01-MAR-2002 (TrEMBLrel, 2)
                                                                                                       Khan S., Kim C., Altafi H., Bei B., Chin C., Chiou J., Choi E., Conn L., Conway A., Gonzalez A., Hansen N., Howing B., Koo T., Lam B., Youyen M., Palm C., Pham P., Sakano H., Schwartz J., Southwick A., Thaveri A., Toriumi M., Vaysberg M., Yu G., Davis R., Federspiel N., Submitted (JUN-2000) to the EMBL/GenBank/DDRT Astano (JUN-2000) to the EMBL/GenBank/DDRT Astano (JUN-2000)
Cheuk R., Shinn P., Brooks S., Buehler B., Chao Q., Johnson-H. Khan S., Kim C., Altafi H., Bei B., Chin C., Chiou J., Choi E Comb L., Conway A., Gonzalez A., Hansen N., Howing B., Koo T. Lee J., Lenz C., Li J., Liu A., Liu J., Liu S., Mukharsky N., Nguyen M., Palm C., Pham P., Sakano H., Schwartz J., Southwick Thaveri A., Toriumi M., Vaysberg M., Yu G., Davis R., Federsp.
                                                                                                                                                                                                                                                                  Arabidopsis thaliana (Mouse-ear cress).
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosideurosids II; Brassicales; Brassicaceae; Arabidopsis.
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                                                                                        SEQUENCE FROM N.A.
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Homo Bapiens (Human).

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MEDLINE-98277139; PubMed=9614934;
Tim R. Van der Merwe P.L.,
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01-WAY-2000 (TrEMBLrel, 13, Las
01-DEC-2001 (TrEMBLrel, 19, Las
Myosin-reactive immunoglobulin
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lin light chain variable
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Pred. No. 0.01;
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Pfam; PF00759; Glyco hydro 9; 1.

PROSITE; PS00592; GLYCOSYL_HYDROL_F9_1; 1.

Hypothetical protein.

SEQUENCE 525 AA; 57868 MW; FBC3704F4BB
                                                                                                                                                                                      SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable
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Submitted
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fam; PF00047; ig; 1.
MART; SM00406; IGv; 1.
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                                         1 RASQSVSSS
                                                                                      8; Conserv
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(JUL-2000) to
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                                                                                                          Score 35;
Pred. No.
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InterPro; IPR003140; ABCtranprtTM.
InterPro; IPR003143; ABC transportr.
InterPro; IPR003652; Ag transporter2.
InterPro; IPR003662; sub_transporter.
                                                                                                                                                             Bacillus subtilis.
Bacteria; Firmicutes;
Bacillaceae; Bacillus
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TIGRFAMS; TIGR00958; 3a01208; 1.
PROSITE; PS00211; ABC TRANSPORTER; 1.
PROSITE; PS00217; SUGAR_TRANSPORT_2; UNKNOWN_1.
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Murray J., Wohldmann
"The sequence of C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN=BRISTOL N2;
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Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
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   Karamata D.;
                              SEQUENCE FROM N.A.
Lazarevic V., Soldo
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RA Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,
RA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,
RA Borriss R., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Chis S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RA Chis S.Y., Glaser P., Fujita Y., Fuma S., Galizzi A., Galleron N.,
RA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RA Guiseppi G., Guy B.J., Haga K., Haiech J., Harwood C.R., Henaut A.,
RA Hibert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L.,
RA Joris B., Karamata D., Kasahara Y., Klaerr-Blanchard M., Klein C.,
RA Kunita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Kunita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Medina N., Mellado R.P., Mizuno M., Mosetl D., Nakai S., Noback M.,
RA Noone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,
RA Noone D., O'Reilly M., Portetelle D., Porwollik S., Prescott A.M.,
RA Parecon E., Pujic P., Purnelle B., Rapport G., Rey M., Reynolds S.,
RA Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadaie Y.,
RA Sekiguchi A., Tacconi E., Takalashi H., Takamaru K.,
RA Sorokin A., Tacconi E., Takalashi H., Takamaru K.,
RA Viari A., Wambutt R., Wedler E., Wenter F., Vassarotti A.,
RA Viari A., Wandenbol M., Vannier F., Vassarotti A.,
RA Viaria A., Wandenbol M., Vannier F., Vassarotti A.,
RA Viaria A., Wandenbol M., Vannier F., Vasarotti A.,
RA Viaria A., Wandenbol M., Vannier F., Vasarotti M.,
RA Viaria A., Wandenbol M., Vannier F., Vata K.,
RA Winter B., Ra Kanamaru K.,

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01-NOV-1996
01-NOV-1996
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Herpes simplex virus (type 2).
Viruses; dsDNA viruses, no RNA st
Alphaherpesvirinae; Simplexvirus.
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SMART; SM00347; HTH_MARR; 1.

Complete proteome DNA-binding; Transcription regulation; Complete proteome DNA-binding; Transcription regulation; Complete proteome SEQUENCE 157 AA; 18244 MW; 7E39E94723596A53 CRC64;
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Q8VGJ8;
01-MAR-2002
        (1)
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
Zhang X., Firestein S.J.;
"The olfactory receptor gene superfamily
"The Neurosci. 0:0-0(2002).
                                                                                                                                                           Olfactory receptor MOR127-4.
Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                   01-MAR-2002
01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=CV. NIPPONBARE;
Sabaki T., Matsumoto T., Yaman
"Oryza sativa nipponbare (GA3)
Clone:P0518C01.";
SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Viridiplantae; Stre
Spermatophyta; Magnoliophyta;
Ehrhartoideae; Oryzeae; Oryza.
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P0518C01.13
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"The nucleotide sequence, 5' end, promoter domain, and ki
expression of the gene encoding the Herpes simplex virus
latency-associated transcript.";
J. Virol. 65:5619-5623(1991).
EMBL, M69065, AAA48850.1; -.
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MEDLINE=91374627; PubMed=1654458;
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8; Conserv
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(TrEMBLrel. 21, Last annotation update)
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yta; Liliopsida; Poales; Poaceae;
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01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-DEC-2001 (TrEMBLrel.:19, Last annotation update)
Putative WRKY-type DNA-binding protein (WRKY tran
SEQUENCE FROM N.A. STRAIN=CV. COLUMBIA;
                                                                                                                                                                      Q9ZUU0
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Proc. Natl. Acad. Sci. U.S.A. 9

EMBL; AE009943; AAL65068.1;

Hypothetical protein; Complete
SEQUENCE 333 AA; 36031 MW;
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08ZSP5;
01-MAR-2002
01-MAR-2002
01-MAR-2002
                               NCBI_TaxID=3702;
                                       Arabidopsis thaliana (Mouse-ear cress).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheopsperatophyta; Magnoliophyta; eudicotyledons; core eudicots; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                       AT2G37260 OR WRKY44.
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SEQUENCE
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STRAIN=IM2 / ATCC 51768 / DSM 7523;
PubMed=11792869;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Archaea; Crenarchaeota; Thermoprotei; Thermoproteaceae; Pyrobaculum. NCBI_TaxID=13773;
                                                                                                                                                                                                                                                                                                                                                                                             Miller J.H.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pyrobaculum aerophilum.
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PRINTS; PR00237; GFCRRHODOPSN.

PROSITE; PS00237; G PROTEIN RECEP F1 1; UNKNOWN 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
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Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AY073149; AAL60812.1; -.
                                                                                                                                                                                                                                                                                                                                                                             Genome sequence of the hyperthermophilic crenarchaeon
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udicots; Rosidae;
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Viruses; dsDNA viruses,
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"Sequence analysis of the Xestia c-nigrum
Virology 26:277-297(199).
EMBL; AP162221; AAF05129.1; -.
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EMBL; AF404862; AAK96200.1;
InterPro; IPR003657; WRKY.
Pfam; PF03106; WRKY; 2.
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Fujii C.Y., Mason T.M., Buell C.R., Ketchum K.A.,

Buell C.R., Ketchum K.A.,
                                                                                                                                                                                                                                                                                                                           SEQUENCE
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01-MAY-2000
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01-JUN-2001 (TrEMBLrel. 17,
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PROSITE; PS50283; NA SOLUT SYMP
Hypothetical protein; Complete p
SEQUENCE 510 AA; 55889 MW; D
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EMBL; AP003359; BAB56476.1; -.
EMBL; AP003130; BAB41527.1; -.
InterPro; IPR001734; Na/solut_symport.
Pfam; PF00474; SSF; 1.
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SAV0314 OR SA0303.
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Alphaherpesvirinae; Varicellovirus.
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Kanehisa M., Yamashita A., Oshima K., Furuya K., Yo
Hattori M., Ogasawara N., Hayashi H., Hiramatsu K.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIES=S.aureus (strain Mu50), an
MBDLINE=21311952; PubMed=11418146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A
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                                                                                                    Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
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RASQSVSSSFL 11
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                                                                                                                                                                                                                                        906 AA;
                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xiao
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                                                                                                                                                                                                                                    99474 MW;
                                                                                                                                63.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last annotation update)
                                                                                                Score 34; DB
Pred. No. 1.7e
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             e Q., F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 34; DB
Pred. No. 91;
                                                                                                                                                                                                                                           C4D2E8687CD58725 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteome.
D98E7657FF2F0CC0 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fang L.;
B gene of Pseudorabies Virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            906
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                                                                                                                                       1.7e+02
                                                                                                                                                                       DB 12;
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S., Yabuzaki J.,
Yoshino C., S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16;
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س
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346 RASESVTRNFL 356

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DBWQLB
DBWQLB
AC QBWQLB
AC QBWQLB
AC QBWQLB
AC QBWQLB
AC QBWQLB
DT 01-MAR-2002 (TTEMBLrel. 20, Last sequence update)
DT 01-MAR-2002 (TTEMBLrel. 20, Last sequence update)
DT 01-MAR-2002 (TTEMBLrel. 20, Last annotation update)
DE Insulin receptor substrate-like protein.

GN IST-1.

CS Caenorhabditis elegans.
CC Enkaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
CC Rhabditidae; Peloderinae; Caenorhabditis.
CN RCBL_TaxID=6239;
RN [1]
CN RCBL_TaxID=6239;
RN GLOWCC, Hu P., Tewari M., Vidal M., Ruvkun G.;
RN GATASID=6239;
RN GATASID=
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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

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Minimum DB
Maximum DB
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM protein - protein search, using sw model
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length: 0
seq length: 2000000000
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52
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                                                                                                                                    /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1994.DAT:*/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1995.DAT:*/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1996.DAT:*/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1996.DAT:*/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1998.DAT:*/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT:*SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIDS2/gcgdata
                                                                                                                                                                                                                                                                                                                                            SIDS2/gcgdata/geneseq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /geneseq,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /AA1988.DAT:*
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Result		Ouerv		:		
No.	Score	Match	Match Length DB	BB	Ą	Description
ب	52	100.0	12	22	AAB67498	Human light chain
N	51	. 98.1	235	21	AAY93702	The kappa chain of
ω	51	98.1	235	21	AAY93729	The kappa chain of
44	49	94.2	12	12	AAR15375	<pre>IgM-RF Glo. Synth</pre>
ហ	49	94.2	12	23	AAU83718	
6	49	94.2	12	23	ABB57469	HLA-DR-specific pr
7	49	94.2	12	23	ABB57472	HLA-DR-specific pr
80	49	94.2	12	23	ABB57475	HLA-DR-specific pr
9	49	94.2	12	23	ABB57480	HLA-DR-specific pi
10	49	94.2	12	23	AAU70331	Human Kappa III li

WPI; 2001-202933/20

Korman AJ,

Halk EL,

Lonberg N;

24-AUG-1999; 99US-0150452. 24-AUG-2000; 2000WO-US23356

(MEDA-) MEDAREX INC.

01-MAR-2001.

WO200114424-A2 Homo sapiens.

	937	22	226	•	49	4 5	
int	9937	22	226	94.2	49	44	
1L8	AAB75025	22	224	•	49	43	
	AAB75010	22	224	•	49	42	
Anti-IL8 monoclona	8	22	224	• •	49	41	
Human interleukin	AAB99392	22	224	•	49		
Human interleukin	AAB99377	22	224	•	49	79	
	AAB99375	22	224	•	49	38	
_	AAE00946	22	150		49	37	
n monocl	AAW40069	19	150	•	49	36	
Jk2	AAR38672	14	129	•	49	35	
acid sequen	AAY40431	20	116		49	. 34	
	AAW62184	19	116		49	ω ω	
vkappa65.8	AAW41146	18	116		49	32	
ragment vk65	AAW03948	17	116	•	49	31	
Human V-kappa vk6	AAR62930	<u>1</u>	116	•	49	30	
Human V-kappa frac	AAR38650	14	116		49	29	
HLA-DR-specific p	ABB57562	23	110		49	28	
HLA-DR-specific pi	ABB57558	23	110		49	27	
HLA-DR-specific pi	ABB57556	23	110		49	26	
HLA-DR-specific pa	ABB57554	23	110		49	25	
MS-GPC-6 light cha	AAU83804	23	110		49	24	
Human Ab light cha	AAW27545	18	110		49	23	
Anti-IL-4 and IL-:	ABB07233	23	109		49	22	
Anti-IL-4 receptor	ABB07231	23	109		49	21	
	AAB62768	22	109		49	20	
Human V kappa subc	AAW84096	20	109		49	19	
Antibody screening	AAO21549	23	108		49	18	
Human scFV L19 ant	AAE08819	22	108		49	17	
VL component of an	AAY53774	21	108		49	16	
	AAY98233	21	105		49	15	
20	AAY95124	21	105		49	14	
VL region of HIV r	AAW01272	17	105		49	13	
	AAR54314	15	105		49	12	
CB2iE12 kappa chai	ABB07181	23	101		49	11	

ALIGNMENTS

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RESULT 1
AAB67498
autoimmune disease; infectious dise
rheumatoid arthritis; myasthenia gr
rheumatoid scherosis; insulin-depende
multiple solerosis; insulin-depende
transplant rejection; graft versus
                                                                                                                                                                                                                                                   Complementarity determining region; CDR; immune response; antibody; cytotoxic T_lymphocyte_associated antigen-4; CTLA-4; B7_ligand; cancer;
                                                                                                                                                                                                                                                                                                               29-MAY-2001
                                                                                                                                                                                                                                                                                                                                       AAB67498;
                                                                                                                                                                                                                                                                                                                                                             AAB67498 standard; peptide; 12 AA
                                                                                                                                                                                                                                                                                      Human light chain complementarity determining region 1 (CDR1).
                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                       infectious disease; inflammation; allergy;
                                                                                                                                                                                                                  insulin-dependent
                                                                                                                                                                                                                             myasthenia gravis;
                                                                                                                                                                                                                  diabetes mellitus; inflammation;
                                                                                                                                                                                                      disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                  Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune system; hyperimmunity disorder; autoimmune disease; diabetes; graft reject proliferative disorder; cancer; immunodeficient disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              an immune response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia
                                                  WPI; 2000-442647/38.
N-PSDB; AAA46865.
                                                                                                                                                                             23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                             The kappa chain of immunoglobulin clone 4.1.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY93702 standard;
                                                                                             Corvalan JR,
                                                                                                         Hanson DC, Neveu MJ,
                                                                                                                                  (ABGE+) ABGENIX INC.
                                                                                                                                                                                                         23-DEC-1999;
                                                                                                                                                                                                                                      29-JUN-2000
                                                                                                                                                                                                                                                                 WO200037504-A2
                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gravis and lupus erythematosus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human sequence antibody that binds to human cytotoxic T lymphocyte associated antigen-4, useful for inducing, augmenting prolonging immune response to antigen or for suppressing immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diabetes mellitus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 31; Page 100; 127pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB67490-99 and AAB67501-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytotoxic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş.
                                                                                                                                                                             98US-0113647.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of
f
                                                                                                                                                                                                         99WO-US30895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human antibodies. The antibodies specifically bind lymphocyte associated antigen-4 (CTLA-4). Such ad in methods for inducing, augmenting or prolonging
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12
                                                                                                       Mueller EE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 52; DB 22; I
Pred. No. 0.00056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          s, multiple sclerosis, insulin-dependent rejection, and inflammation, graft vers
                                                                                                      Hanke
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                                                                                                    Gilman SC,
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                                                                                                      Davis CG
                                                                                                                                                                                                                                                                                                                                  rejection;
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Novel antibodies capable of binding cytotoxic T-lymphocyte antigen (CTLA)-4 containing specified heavy and light chain sequences, use

useful

The present sequence represents a kappa chain of an antibody of the invention. The antibody is directed cytotoxic T-lymphocyte antigen (CTLA)-4. Antibodies of the invention are composed of a heavy chain variable region, comprising a modified contiguous sequence from a

Hanson DC, N

Neveu MJ,

Mueller

F 당 '

Hanke

Ή

Gilman

Davis

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Novel antibodies capable of binding (CTLA)-4 containing specified heavy for treating, e.g. immune disorders

cytotoxic T-lymphocyte antigen and light chain sequences, useful

N-PSDB; AAA46893. WPI; 2000-442647/38

Claim

u --

229;

157pp;

English.

disorders

treating, e.g.

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RESULT 3
AAY93729
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                                                                                                                                                                  (PFIZ )
(ABGE-)
                                                                                                                                                                                                23-DEC-1998;
                                                                                                                                                                                                                  23-DEC-1999;
                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                      hyperimmunity proliferative
                                                                                                                                                                                                                                                                                                                                                      Cytotoxic T-lymphocyte antigen-4; CTLA-4; antibody; immune system;
                                                                                                                                                                                                                                      29-JUN-2000
                                                                                                                                                                                                                                                          WO200037504-A2
                                                                                                                                                                                                                                                                                                                                                                            The kappa chain of immunoglobulin clone 4.1.1.
                                                                                                                                                                                                                                                                                                                                                                                                 03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                     AAY93729;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3;
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                                                                                                                                                                 PFIZER INC.
ABGENIX INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 RASOSVSSSFLA 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      system to up-regulate immunodeficient disorders.
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11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; Protein;
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                                                                                                                                                                                                                                                                                                                                    autoimmune disease; diabetes; graft rejection; cancer; immunodeficient disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               is directed
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                                                                                                                                                                                                                                                                                                                                                                                                                                        235
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Pred. No.
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on are composed of a hea
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heavy chain
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RESULT 4
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Matches 11
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                                                                                                                                                                                                                                   Three rabbits were inoculated with two s.c. injections of PGL1 (synthetic peptide) conjugated to KLH as an immunogen, and their sera were analysed for anti-peptide antibody activity by FLISA. All three immunised rabbits produced anti-PGL1 antibody. Antise:
                                                                                                                                                                                                                                                                                                                                                                                Synthetic polypeptide(s) for inducing anti-idiotype antibodies useful for treating auto immune-, endocrine- and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US5068177-A.
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                                                                                                                                                                                drawn from a rabbit on two different days reacted significantly with the corresp. intact IgM-RF Glo.
See also AAR15365-74 and AAR15375.
                                                                                                                                                                                                                                                                                                                            Claim 10; Page 42; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carson DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-AUG-1985;
28-DEC-1983;
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RASOSVSSSYLA 12
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83US-0566172.
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                                                                                          94.2%;
91.7%;
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91.7%;
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Pred.
                                                                                  Score 49; DB 12;
Pred. No. 0.0023;
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                                                                                                                                                                                                       cc encoding the polypeptide, a vector comprising the mucleic acid and a host cell harbouring vector or nucleic acid. The polypeptide (optionally cc) linked to cytotoxic or immunogenic agent), the nucleic acid and the host cell are useful for preparing a pharmaceutical preparation for the cell are useful for preparing a pharmaceutical preparation for the cransformed cells expressing MHC class II antigens, B cell non-Hodgkin's Ct transformed cells expressing MHC class II antigens, B cell non-Hodgkin's Ct tymphoma, B cell acute lymphoid leukaemia, B cell survive cell lymphoma, B cell acute lymphoid leukaemia, Chronic Ct myeloid leukaemia, T cell lymphoma, T cell non-Hodgkin's lymphoma, Chronic myeloid leukaemia, Chronic lymphoma chronic complete cells of the cell service in the cell service in the cell service in the cell service in the cell service in the cell service in the cells of the cells expressing MHC class II, rheumatoid cells expressing MHC class II, rheumatoid cells expressing MHC class II, rheumatoid cerythematosus, ankylosing spondylitis, transplant rejection, graft vs. host disease, Hashimoto's disease, myasthenia gravis, pemphigus colleges and the colleges of the cells of the cells company the service of the cells of the cells colleges.
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syndrome in humans. The antigen is useful for suppressing activation or proliferation of a cell of the immune system, suppressing interleukin-2 (IL-2) secretion by a cell of the immune system, such as expressing HLA-DR, the interaction of the cell of the immune system with another
                                                                                                                                                 vulgaris, glomerulonephritis, thyroiditis, pancreatitis, insulit primary biliary cirrhosis, irritable bowel disease and Sjogren's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       with binding specificity for an antigen expressed on surface of a human cell, especially HIA-DR (human leukocyte antigen DR), where treating cells expressing HIA-DR with the multivalent polypeptide or leads to killing of cells without need of cytotoxic entities or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a composition which includes a pol or a multivalent polypeptide comprising one or more antibody-based antigen -binding domain of human composition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Polypeptide compositions which bind to cell surface epitopes, which in multivalent form kills lymphoid tumour cells and in monovalent form causes immunosuppression or inhibits activation of lymphocytes -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-075288/10
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06-OCT-2000; 2000US-238492P.
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irritable bowel disease; Sjogren's syndrome; interleukin-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MS-GPC-6 light chain variable region CD1 sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunological mechanisms. Also included are the nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brunner C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
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   The present polypeptide composition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human leukocyte antigen; immune system; immunosuppression; antibody; major histocompatibility complex; antirheumatic; antiarrhritic; neuroprotective; antiinflammatory; antidiabetic; antipsoriatic; immunosuppressive; dermatological; antithyroid, nephrotropic; psoriasis; thyromimetic; hepatotropic; immune response suppressor; narcolepsy; rheumatoid arthritis; juvenile arthritis; multiple sclerosis; insulitis; crave's disease; insulin-dependent diabetes; Hashimoto's disease; systemic lupus erythematosus; ankylosing spondylitis; myasthenia gravis; transplant rejection; graft versus host disease; pemphigus vulgaris; glomerulonephritis; thyroiditis; pancreatitis; primary biliary cirrhosis; transplant production; careful transplant production; careful transplant production; careful transplant production; careful transplant production; careful transplant production; careful transplant primary biliary cirrhosis;
                                                                                                                       Composition for suppressing immune response, treating diseases of immune system, has polypeptide comprising antibody-based antigen-binding domain of human composition, which binds antigen
                                                                                                                                                                                                                                                                                                                            12-MAY-2000; 2000EP-0110063.
06-OCT-2000; 2000US-238762P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cell, immunosuppressing a patient and for killing a cell expressing a antigen, HIA-DR on the surface of the cell, where neither cytotoxic entities nor immunological mechanisms are needed to cause or lead to the killing. The killing is dependent on the action of non-caspase proteases and/or cannot be inhibited by zVAD-fmk or zDEVD-fmk. The present sequence is a complementarity determining region (CDR) based on the human antigen binding polypeptides of the invention MS-GPC-1, and 10. The CDRs are either the native sequence or have been optimised/mutated to alter their antigen binding capabilities.
                                                                                                                                                                                                     WPI; 2002-075289/10
                                                                                                                                                                                                                                     Nagy Z,
                                                                                                                                                                                                                                                                                                                                                                                     14-MAY-2001; 2001WO-US15626
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200187338-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                    Example; Page 60; 139pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                         22-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunomodulatory human MHC class II antigen-binding protein; HLA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HLA-DR-specific protein VL-CDR1-Sequence MS-GPC-2.
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                                                                                                                                                                                                                                                                             (MORP-)
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invention describes a composition (I), comprising a comprising an antibody-based antigen-binding domain of human with binding specificity for an antigen expressed on the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                            cell surface
                                                                                                                                                                                                                                     Thomassen-Wolf E;
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Pred. No. 0.00
1; Mismatches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human leukocyte antigen; immune system; immunosuppression; antimajor histocompatibility complex; antirheumatic; antiarthritic; neuroprotective; antiinflammatory; antidiabetic; antipsoriatic;
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(I) (optionally linked to cytotoxic or immunogenic agent) is useful for preparing a pharmaceutical preparation for the treatment of rheumatoid arthritis, juvenile arthritis, multiple sclerosis, Grave's disease, insulin-dependent diabetes, narcolepsy, psoriasis, systemic lupus erythematosus, ankylosing spondylitis, transplant rejection, graft versus lost disease, Hashimoto's disease, myasthemal gravis, pemphigus vulgaris, glomerulonephritis, thyroiditis, pancreatitis, insulitis, primary biliary cirrhosis, irritable bowel disease and Sjogren's syndrome in humans.

ABA92474 and ABA97475 to ABB97500 represent sequence used in
                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           surface of a cell, where treating cells expressing the antigen with the polypeptides leads to suppression of an immune response, and the IC50 for the suppression of immune response and the IC50 for the suppression of immune response is 1 microM or less. (I) has antirheumatic, antiarthritic, neuroprotective, antiinflammatory, antidiabetic, antipsoriatic, immunosuppressive, dermatological, antithyroid, nephrotropic, thyronimetic and hepatotropic activities, and can be used as a suppressor of immune response. (I) is useful for suppressing activation or proliferation of a cell of the immune system with another cell, immunosuppressing apatient and for immune system with another cell, immunosuppressing a patient and for virtues of all expressing a patient and for the cell and cell as a patient and for the cell and cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell as a cell a
                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HLA-DR-specific protein VL-CDR1-Sequence MS-GPC-3.
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91.7%;
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Pred. No. 0.0023;
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12-MAY-2000; 2000EP-0110063. 06-OCT-2000; 2000US-238762P. 14-MAY-2001; 2001WO-US15626.

(GPCB-) GPC BIOTECH AG (MORP-) MORPHOSYS AG.

22-NOV-2001

WO200187338-A1

WPI; Nagy Z,

2002-075289/10

Thomassen-Wolf E;

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RESULT 8
ABB57475
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Best Local :
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(I) (optionally linked to cytotoxic or immunogenic agent) is useful for preparing a pharmaceutical preparation for the treatment of rheumatoid arthritis, juvenile arthritis, multiple sclerosis, Grave's disease, insulin-dependent diabetes, narcolepsy, psoriasis, systemic lupus erythematosus, ankylosing spondylitis, transplant rejection, graft versus host disease, Hashimoto's disease, myasthenia gravis, pemphigus vulgaris, glomerulonephritis, thyroiditis, pancreatitis, insulitis, primary biliary cirrhosis, irritable bowel disease and Sjogren's syndrome in humans.

ABA92469 to ABA92474 and ABB57457 to ABB57590 represent sequence used in
                                                                                                                                                                                                                                          Immunomodulatory human MHC class II antigen-binding protein; HLA; human leukocyte antigen; immune system; immunosuppression; antibody; major histocompatibility complex; antitheumatic; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        suppressing IL-2 secretion by a cell, the interaction of a cell of the immune system with another cell, immune suppressing a patient and for killing a cell expressing an antigen, human leukocyte antigen (HLA)-DR on the surface of the cell, where neither cytotoxic entities nor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for an antigen expressed on the surface of a cell, where treating cells expressing the antigen with the polypeptides leads to suppression of an immune response, and the IC50 for the suppression of immune response is 1 microM or less. (I) has
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Composition for suppressing immune response, treating diseases of immune system, has polypeptide comprising antibody-based antigen-binding domain of human composition, which binds antigen expressed on a cell surface
                                                                                                                                                immunosuppressive; dermatological; antithyroid; nephrotropic; psoriasis; thyromimetic; hepatotropic; immune response suppressor; narcolepsy; rheumatoid arthritis; juvenile arthritis; multiple sclerosis; insulitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antirheumatic, antiarthritic, neuroprotective, antiinflammator antidiabetic, antipsoriatic, immunosuppressive, dermatological
                                                             systemic lupus erythematosus; ankylosing spondylitis; myasthenia gra
transplant rejection; graft versus host disease; pemphigus vulgaris;
glomerulonephritis; thyroiditis; pancreatitis; primary biliary cirrh
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                                                                                                                             Grave's disease; insulin-dependent diabetes; Hashimoto's disease;
                                                                                                                                                                                                                       neuroprotective; antiinflammatory; antidiabetic; antipsoriatic;
                                                                                                                                                                                                                                                                                                                                      HLA-DR-specific protein VL-CDR1-Sequence MS-GPC-4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example; Page 60; 139pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RASQSVSSSFLA 12
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91.7%;
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Pred. No. 0.0023;
1; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a composition (I),
                                                                                                          spondylitis; myasthenia gravis;
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Homo sapiens

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Matches

Conservative

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RASOSVSSSFLA 12

18-MAR-2002

(first entry)

ABB57480

ABB57480 standard; Peptide; 12

HLA-DR-specific protein VL-CDR1-Sequence MS-GPC-6

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CC can be used as suppressor of immune response. (1) is useful for csuppressing activation or proliferation of a cell of the immune system, cc suppressing II-2 secretion by a cell, the interaction of a cell of the immune system, cc suppressing II-2 secretion by a cell, the interaction of a cell of the cc immune system with another cell, immunosuppressing a patient and for c killing a cell expressing an antigen, human leukocyte antigen (HLA)-DR con the surface of the cell, where neither cytotoxic entities nor cc immunological mechanisms are needed to cause or lead to the killing. (I) (optionally linked to cytotoxic or immunogenic agent) is useful for creparing a pharmaceutical preparation for the treatment of rheumatoid carthritis, juvenile arthritis, multiple sclerosis, Grave's disease, cinsulin-dependent diabetes, narcolepsy, psoriats, Grave's disease, creythematosus, ankylosing spondylitis, transplant rejection, graft versus continues, hashimoto's disease, myasthenia gravis, pemphigus vulgaris, clivensis, irritable bowel disease and Sjogren's syndrome in humans. CC disposis, irritable bowel disease and Sjogren's syndrome in humans. CC chab2446 to ABA92474 and ABBS7457 to ABBS7590 represent sequence used in cc.
  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes a composition (I), comprising a polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for an antigen expressed on the surface of a cell, where treating cells expressing the antigen with the polypeptides leads to suppression of an immune response, and the IC50 for the suppression of immune response, and the IC50 for the suppression of immune response is 1 microM or less. (I) has
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Composition for suppressing immune response, treating diseases of immune system, has polypeptide comprising antibody-based antigen-binding domain of human composition, which binds antigen expressed on a cell surface.
                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antirheumatic, antiarthritic, neuroprotective, antiinflammatory, antidiabetic, antipsoriatic, immunosuppressive, dermatological, antithyroid, nephrotropic, thyromimetic and hepatotropic activities, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-MAY-2000; 2000EP-0110063
06-OCT-2000; 2000US-238762P
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94.2%;
Score 49; DB 23;
Pred. No. 0.0023;
                       Length 12;
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human leukocyte antigen; immune system; immunosuppression; antibody; major histocompatibility complex; antirheumatic; antiarthritic; neuroprotective; antifilammatory; antidiabetic; antigroriatic; immunosuppressive; dermatcological; antithyroid; nephrotropic; psoriasis; thyromimetic; hepatotropic; limmune response suppressor; narcolegsy; rheumatoid arthritis; juvenile arthritis; multiple sclerosis; insulitis; Grave's disease; insulin-dependent diabetes; Hashimoto's disease; systemic lupus erythematosus; ankylosing spondylitis; myasthenia gravis; transplant rejection; graft versus host disease; pemphigus vulgaris; glomerulonephritis; thyroiditis; pancreatitis; primary biliary cirrhosis; irritable bowel disease; Sjogren's syndrome.
                                                                                                                                                                                                                                                                                                                                                  antirheemmatic, antiarthritic, neuroprotective, antiinflammatory, antidabetic, antipsoriatic, immunosuppressive, dermatological, antithyroid, nephrotropic, thyromimetic and hepatotropic activities, and can be used as suppressor of immune response. (I) is useful for suppressing activation or proliferation of a cell of the immune system, suppressing IL-2 secretion by a cell, the interaction of a cell of the immune system with another cell, immunosuppressing a patient and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for an antigen expressed on the surface of a cell, where treating cells expressing the antigen with the polypeptides leads to suppression of an immune response, and the IC50 for the suppression of immune response and the IC50 for the suppression of immune response is 1 microM or less (I) has
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Composition for suppressing immune response, treating diseases of immune system, has polypeptide comprising antibody-based antigen-binding domain of human composition, which binds antigen expressed on a cell surface -
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06-OCT-2000; 2000US-238762P.
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immune system with another cell, immunosuppressing a patient and for killing a cell expressing an antigen, human leukocyte antigen (HLA)-DR on the surface of the cell, where neither cytotoxic entitles nor immunological mechanisms are needed to cause or lead to the killing (I) (optionally linked to cytotoxic or immunogenic agent) is useful for preparing a pharmaceutical preparation for the treatment of rheumatoid arthritis, juvenile arthritis, multiple sclerosis, Grave's disease, arbiritis, juvenile arthritis, multiple sclerosis, Grave's disease, insulin-dependent diabetes, narcolepsy, psoriasis, systemic lugus erythematosus, ankylosing spondylitis, transplant rejection, graft versus host disease, Habsimoto's disease, myssthenia gravis, pemphigus vulgaris, glomerulomephritis, thyroiditis, panoreatitis, insulitis, primary biliary cirrhosis, irritable bowel disease and Sjogren's syndrome in humans.

ABA92469 to ABA92474 and ABB57457 to ABB5750 represent sequence used in the communication of the communication.
invention.
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Query Match Best, Local

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Gaps

RESULT 11 ABB07181

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Score 49; DB 23; Pred. No. 0.0023; Mismatches

DB 23;

Length 12; Indels

Sequence

12 ₹

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                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                           94.2%;

    Mismatches

                                                                                                                                                                                                                                     Score 49; DB 23;
Pred. No. 0.0023;
                                                                                                                                                                                                                                                                                            23,
                                                                                                                                                                                    0
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ABB07181;

ABB07181 standard; Protein; 101 AA.

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CC neurite outgrowth, regeneration, remyelination and neuroprotection in C central nervous system (CNS). (1) is capable of inducing remyelination, CC promoting cellular proliferation of glial cells, and promoting Ca2+ CC signaling with oligodendrocytes. An humanised antibody to (1) can be celled from antibody sHIGM22 (LYM 22), ebvHigM MSI19D10, ebv HIGM CC DESD68, AKJR4, CB21E12, CB21E17 or MSI19E5. (1) is useful for stimulating CC RNS axons, or treating demyelinating proliferation of glial cells in CC CNS axons, or treating demyelinating proliferation of glial cells in CC CNS axons, or treating demyelinating disease of CNS in a mammal in need of such therapy. (1) is capable of binding to structures and cells within CC of a mouse infected with Strain DA of Theiler's murine encephalomyelitis (TMEV) or for treating a human being having multiple sclerosis, or a common or domestic animal with a viral demyelinating disease, or a post-curval disease of CNS. (1) is also useful for stimulating remyelination of CNS axons. The continuation in a subject Methods where (1) is administered to a patient condition in a subject Methods where (1) is administered to a patient causeful for treating multiple sclerosis, Parkinson's disease, CNS disease, and other conditions in the CNS where nerves are damaged as by trauma. The present sequence represents conditions in the CNS where nerves are damaged as by trauma. The present sequence represents
                                                                                                                            Query Match
Best Local S
Matches 11
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                                                                                                                                                                                                                                                               Sequence
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24
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                                                          RASOSVSSSFLA 12
RASOSVSSSYLA 35
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                                                                                                                                   Conservative
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                                                                                                                                                              94.2%;
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                                                                                                                                                           Score 49; DB 23
Pred. No. 0.026;
                                                                                                                               Mismatches
                                                                                                                                                                                             DB 23; Length 101;
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19

RASOSLSSSFLA 30

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RESULT 12
AAR54314
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                                   Query Match
Best Local S
                        Matches
                                                                                                     Blue cells were transformed with the library. Filamentous phage were produced which expressed the MAb regions on their surface. Panning with gp120 and gp41 resulted in the recovery of immunoreactive clones. The light chain VK region sequence AAR54314 is from a gp120-
                                                                     Sequence
                                                                                                                                                  Lymphocyte mRNA was converted to cDNA and subjected to PCR amplification using primers specific for heavy and light chain variable regions. The amplification products were inserted into a dicistronic vector to produce a library of fragments. E.coli XL1
                                                                                                                                                                                                                                    New human monoclonal antibodies neutralising HIV - ry gp120 or gp41 and nucleic acid encoding them, useful or in vitro diagnosis and for passive immuno-therapy
                                                                                                                                                                                                                                                                                                                                                                               30-SEP-1993;
                                                                                                                                                                                                              Example; Page 182; 248pp; English
                                                                                                                                                                                                                                                                                    WPI; 1994-135516/16.
                                                                                                                                                                                                                                                                                                                                                        30-SEP-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus; HIV1; glycoprotein gp120; epitope; neutralisation; monoclonal antibody; kappa light chain; variable region; framework; complementarity determining region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR54314 standard; protein; 105
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RASQSVSSSFLA 12
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                                  94.2%;
91.7%;
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                       1.
                      Score 49; DB 15;
Pred. No. 0.027;
1; Mismatches (
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                       0
                                            Length 105;
                       Indels
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                                                                                            RESULT 13
AAW01272
                                              Query Match
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Matches 11
                                                                                                              The sequences given in AAW01261-92 represent the light chain variable regions (VL) of a series of monoclonal antibodies (MAb's) which are immunoreactive with HIV glycoprotein gp120 and are capable of neutralising HIV. This sequence represents the sequence of the JK2 gene clone, s5. A MAb containing this VL sequence has the capacity to reduce HIV infectivity titre in an in vivo virus infectivity assay by 50 % at a concentration of less than 700 ng of antibody/ml, and binds mature gp120 preferentially over the precursor gp160. The MAb may be used for determining immunocompetence of a human anti-HIV antibody and in the detection of HIV infection.
                                                                                          Sequence
                                                                                                                                                                                                                                          Example; Fig 11; 366pp; English.
                                                                                                                                                                                                                                                                 Monoclonal antibody binding to V1/V2 passive immuno:therapy and detection
                                                                                                                                                                                                                                                                                                         WPI; 1996-179601/18
                                                                                                                                                                                                                                                                                                                                Barbas CF,
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                    1 RASOSVSSSFLA 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    infectivity assay; precursor gp160; im IV antibody; detection; HIV infection.
                                                         Similarity
RASOSLSSSFLA 30
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                                                                                          105 AA;
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                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV neutralising MAb,
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                                                                                                                                                                                                                                                                                                                                                                             94US-0276852
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19..30
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'label= FR3
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                                          Score 49; DB 17;
Pred. No. 0.027;
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                                                                                                                                                                                                                                                                   loop of HIV gp120 - used in of HIV infection.
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                                                               Length 105
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RASOSVSSSFLA 12 RASQSLSSSFLA 30

Conservative

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94.2%; 91.7%;

Score 49; DB Pred. No. 0.02 1; Mismatches

DB 21; 0.027; 0

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Query Match
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                                                                                                                                                                        field isolates and provide useful information regarding the immunocompetence of an immune response in HIV infected patients. The monoclonal antibodies are useful for producing anti-idiotypic antibodies which can be used to screen human monoclonal antibodies to identify whether the antibody has the same binding specificity as the antibodies of the invention. The neutralising antibodies define new epitopes on the HIV gpl20 and gp41 glycoproteins, thus increasing the availability of new immunotherapeutic human monoclonal antibodies. A major advantages of the monoclonal antibodies of the the thuman polynucleotides sequence. Thus in vivo use of the monoclonal antibodies for diagnosis and immunotherapy of HIV induced disease greatly refuses the monoclonal
Sequence
                         reduces the problems of significant host immune response to the passively administered antibodies which is a problem commonly encountered when monoclonal antibodies of xenogeneic or chimeric derivation are utilized. An additional major advantage of the monoclonal antibodies described derives from the fact that they immunoreact with a unique determinant present on mature HIV glycoprotein gp120. This class of antibodies is particularly effective at neutralising field isolates of HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                            mature glycoprotein gp120 preferentially over HIV precursor glycoprotein gp160 and neutralises HIV and which reduces HIV infectivity titre in an in vitro virus infectivity assay by 50%, at a concentration of less than 700 ng/ml. The antibodies are used as reagents for the diagnosis and immunotherapy of HIV induced disease. They are useful as neutralising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunodeficiency virus type 1 (HIV-1) antibody. The invention relates the human whole immunoglobulin (Ig) molecule which immunoreacts with HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 9; Figure 11; 366pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-human immunodeficiency virus type 1 antibody; HIV-1; neutralise; reduce HIV infection; diagnosis; immunotherapy; HIV induced disease; glycoprotein 120; gp120; glycoprotein 41; gp41; monoclonal antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence represents a fragment of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel human monoclonal antibodies which immunoreact with and neutralise human immunodeficiency virus useful for treating.HIV infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Burton
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(a) providing a first polynucleotide encoding a heavy chain immunoglobulin amino acid sequence (which does not comprise the sequence represented by AN99206) and a second polynucleotide encoding a light chain immunoglobulin amino acid sequence;

(b) inserting the first and second polynucleotide sequences into a host call Human neutralizing monoclonal antibodies to human immunodeficiency virus (HIV) used for providing passive immunotherapy to HIV are specific for glycoprotein-120 with the same binding specificity and to monitor the course of HIV disease therapy by measuring the changes in concentration of HIV present in the body or in body fluids by immunoassay. The anti-HIV gp-120 monoclonal antibodies are encoded by a human polynucleotide sequence and when used in vivo for diagnosis and immunotherapy of HIV-induced disease reduce the problems of significant host immune response to the antibodies associated with monoclonal antibodies of xenogeneic or cell; and Example 9; Figure 11; 374pp; English WPI; 2000-246867/22 Burton DR, 16-SEP-1999; 16-SEP-1999; AU9948754-A. Homo sapiens passive immunotherapy; reduce severity; HIV-induced disease; Antibody; anti-HIV monoclonal antibody; glycoprotein-120; human immunodeficiency virus type 1; HIV-1; infectivity titre; 04-JUL-2000 AAY98233 standard; Protein; 105 AA. (SCRI) SCRIPPS RES INST 17-FEB-2000. immunocompetence; active immunisation Anti-gp120 antibody light chain variable region from AAY98233; isolating the antibody comprising the heavy and light chain Barbas CF, (first 99AU-0048754 99AU-0048754 entry) Lerner RA; clone s5

chimeric derivation

밁 á Query Match Best Local S Matches 11 19 1 RASOSVSSSFLA 12 Similarity RASQSLSSSFLA Conservative 94.2%; Score 49; DB 21; Length 105; Pred. No. 0.027; Mismatches <u>.</u> Indels 0;

Gaps

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Search completed: June 3, 2003, 08:14:49 Job time : 6.40614 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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seq length: 2000000000
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Match
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1 RASQSVSSSFLA 12
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1: /cgn2_6/ptodata/1/pubpaa/US08_
2: /cgn2_6/ptodata/1/pubpaa/PCT_i
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Copyright (c) 1993 - 2003 Compugen Ltd.
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14 US-10-153-382-22
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US-10-153-382-7
US-10-001-934-62
US-09-563-222-11
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Sequence 7, Appl1
Sequence 62, Appl
Sequence 11, Appl
Sequence 40, Appl
Sequence 42, Appl
Sequence 42, Appl
Sequence 23, Appl
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83,	Sequence 74, Appl	e 72,	e 10	e 78	e 44	e 8, 1	e 88	e 27,	e 178,	e 14,		e 1534	Sequence 1219, Ap	e 1264	e 86,	Sequence 80, Appl	e 50,	e 42,	e 38,	equence 76,	æ	e 40,	, S	-	Sequence 10, Appl

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-382-23
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SOFTMARE: PatentIn Ver. 2.1
SEQ ID NO 23
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Best Local Similarity
Matches 11; Conserv
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Publication No. US20030086930A1
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                                                                                                APPLICANT: PFIZER PRODUCTS INC.
TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
                  CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
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TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: 60/293042
PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39
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91.7%;
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LENGTH: 12
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Publication No.
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ORGANISM: Homo sapiens
-10-153-382-7
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ublication No. US20030079253A1
EENERAL INFORMATION:
                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/563,222
                                                                                                                                                                                                                                       CURRENT FILING DATE:
                                                                                                                                                                                                                                                                       TITLE OF INVENTION: IMMUNOGLOBULIN BINDING PROTEIN ARRAYS IN TITLE OF INVENTION: EUKARYOTIC CELLS FILE REFERENCE: 310098.406
                                                                                                                                                                                                                                                                                                                  APPLICANT: Hiatt, Andrew APPLICANT: Hein, Mich B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT FILING DATE: 2001-11-15
NUMBER OF SEQ ID NOS: 63
SOFTWARE: Patentin Ver. 2.1
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APPLICANT: NAGY, ZOLTAN
TITLE OF INVENTION: HUMAN PEPTIDES/PROTEINS CAUSING OR LEADING TO THE
TITLE OF INVENTION: KILLING OF CELLS INCLUDING LYMPHOID TUMOR CELLS
FILE REFERENCE: GPCG-P01-003
CURRENT APPLICATION NUMBER: US/10/001,934
CURRENT FILING DATE: 2001-11-15
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TYPE: PRT
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RASOSVSSSYLA
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91.7%;
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Pred. No.
                                                           Mismatches
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Best Local Similarity
                                                                                                                                             Sequence 41, Application US/09828708 Patent No. US20020146753A1
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TITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their TITLE OF INVENTION: autoimmune disease FILE REFERENCE: 1361.005US1
CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
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Patent No. US20
                                                                              APPLICANT: Burton, D
APPLICANT: Schaller,
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CURRENT FILING DATE: 2001-09-24
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CURRENT FILING DATE: 2001-09-24
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APPLICANT: Schaller, M.
RITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their ITLE OF INVENTION: autoimmune disease
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
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Burton, D.
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US-10-125-687-23
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; ORGANISM: Homo sapiens
US-09-828-708-41
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Best Local Similarity
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Publication No. US20030054407A1
GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 41
                                                                                                                                                                                             SOFTWARE: PatentIn version 3.1 EQ ID NO 23
                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/125,687
CURRENT FILING DATE: 2002-04-17
NUMBER OF SEQ ID NOS: 28
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CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 123
                                                                                                                                                                                                                                                                                                                                                                            10-125-687-23
                                                                                                                                                                                                                                                            UPPLICANT: Luo, Peter
PITLE OP INVENTION: STRUCTURE-BASED CONSTRUCTION OF HUMAN ANTIBODY LIBRARY
FILE REFERENCE: 26050-705
                                                                                                                                                               TYPE: PRT
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ORGANISM: Homo sapiens
                                                                                                                                                                            ENGTH: 74
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their partic: TLE OF INVENTION: autoimmune disease
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                                1 RASOSVSSSFLA 12
RASOSVSSSYLA 28
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Pred. No. 0.041;
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Pred. No. 0.0059;
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Pred. No. 0.0059;
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US-10-153-382-22
; Sequence 22, Application US/10153382
; Publication No. US20030088930A1
; GENERAL INFORMATION:
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US-10-025-687-23
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US-10-025-687-23
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SOFTWARE: PatentIn versio
SEQ ID NO 82
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 22
LENGTH: 96
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Best Local Similarity
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LENGTH: 74
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APPLICANT: Luo, Pet
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                                                                      PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/194,975
CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: US 60/305,111
PRIOR FILING DATE: 2001-07-12
                                                     NUMBER OF SEQ ID NOS: 39
                                                                                                        CURRENT APPLICATION NUMBER: US/10/153,382
                                                                                                                                             APPLICANT: PFIZER PRODUCTS INC.
TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
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TITLE OF INVENTION: Super Humanized Antibodies
FILE REFERENCE: 501231.01
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CURRENT APPLICATION NUMBER: US/10/025,687
CURRENT FILING DATE: 2002-04-17
NUMBER OF SEQ ID NOS: 28
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ORGANISM: Homo sapiens
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b. US20030039649A1
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; ORGANISM: Homo sapiens
US-09-828-708-3
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CORGANISM: Homo sapiens
US-09-828-708-6
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; ORGANISM: Homo sapiens
US-10-153-382-22
                                                                                  Query Match
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SEQ ID NO 3
LENGTH: 105
                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/09828708 Patent No. US20020146753A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                            TITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their partic. TITLE OF INVENTION: autoimmune disease FILE REFERENCE: 1361.005USC CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
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atent No. US20020146753A1
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                                                      Local Similarity 91.
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RASQSVSSSYLA 28
                          RASOSVSSSFLA 12
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                                                                DB 10; Length 105; 0.059;
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-828-708-5
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US-09-828-708-5
                                                           Matches
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SOFTWARE: FastSEQ for
SEQ ID NO 5
                                                                       Query Match
Best Local Similarity
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Patent No. US20020146753A1
GENERAL INFORMATION:
                                                                                                                                                                                                                           CURRENT FILING DATE:
                                                                                                                                                                                                                                     FILE REFERENCE: 1361.005US1
                                                                                                                                                                                                                                                                                                               PPLICANT: Ditzel, H.
                                                                                                                                                                                                                                                               TLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their parTLE OF INVENTION: autoimmune disease
17 RASOSVSSSYLA 28
                           1 RASOSVSSSFLA 12
                                                                                                                                                                                          FastSEQ for Windows Version 4.0
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                                                          Conservative
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2001-09-24
                                                                       94.2%;
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Search completed: June Job time: 2.84642 secs ω 2003, 08:52:54

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Match
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52
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

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Copyright (c) 1993 - 2003 Compugen Ltd.
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US-08-477-484B-150
US-08-46-360-150
US-08-832-081B-42
US-08-839-765-150
US-09-136-389-150
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US-08-652-558-49
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42	42	43	43	43	43	43	43	43	44	44	44	44	44	45	45	45	45
80.8	80.8	82.7	82.7	82.7	82.7	82.7	82.7	82.7	84.6	84.6	84.6	84.6	84.6	86.5	86.5	86.5	86.5
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Sequence 23, Appl	Sequence 38, Appl	Sequence 11, Appl	Sequence 11, Appl	Sequence 6, Appli	Sequence 87, Appl	Sequence 87, Appl	Sequence 87, Appl	Sequence 87, Appl	Sequence 4, Appli	Sequence 94, Appl	Sequence 94, Appl	Sequence 94, Appl	Sequence 94, Appl	-	•	Sequence 151, App	•

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Length 105;

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RESULT 3
US-08-899-575-93
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                                                                                                                                                                                        MOLECULE TYPE:
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TTORNEY/AGENT INFORMATION:
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                                                                                                                                    Local
                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: SO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0
FILING DATE: 24-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/178,302
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93, Application US/08899575
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Pred. No. 0:014;
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Best Local
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SENERAL INFORMATION:
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                                                                                            COMPUTER READABLE FORM:
                                                                                                                          TITLE OF INVENTION:
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                 SOFTWARE: Patentin Re
URRENT APPLICATION DATA
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                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                            EDIUM TYPE:
                                                                                                            BER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 18-JUI
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STREET: Mail
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10666 No. 5804440th Torrey Pines Road, Suite 220
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MENTION: HUMAN NEUTRALIZING MONOCLONAL ANTIBODIES
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SYSTEM: PC-DOS/MS-DOS
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Carlos
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                             Release #1.0; Version #1.25 (EPO)
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PCT/US95/08743
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lequence 49, Appr
No. 586115
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COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb

COMPUTER: IBM PC compatible

COMPUTER: SYSTEM: PC-DOS/MS-DOS
                                                                                                                       MOLECULE TYPE:
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                                                                                                                                  TOPOLOGY: 11
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                                                                                                                                                                                                                                                                        REGISTRATION NUMBER:
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STLING DATE: JUNE 6, 1996
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RASQSVSSSYLA 35
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75 STATE STREET, 23RD FLOOR
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DN: HUMANIZED ANTIBODIES AND USES
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                                                                Score 49; DB 2; Length 107; Pred. No. 0.014;
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Pred. No. 0.014;
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US-08-477-484B-150

Sequence 150, Application US/08477484B Patent No. 5756699

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US-08-488-113B-150
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Best Local S
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
PRIOR APPLICATION UNMBER: US 07/988,430
FILING DATE: 09-DEC-1992
                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: 312/707-8889
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CITY: Chicago
CITY: Illinois
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.PPLICANT: Studnika, Gary M.
!ITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating
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                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 01
FILING DATE: 18-APR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 19-JUN-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/488,113B
                                                                                                                                                                                                                      ENGTH:
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                                                                                                                                                                                                                                                                                                                                                              EGISTRATION NUMBER:
                                 1 RASOSVSSSFLA 12
24 RASQSVSSSYLA 35
                                                                                  Similarity
                                                                                                                                                                                                   amino acid
                                                                                                                                                                                                                                                                                                                                                                          McNicholas, Janet M.
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500 West Madison Street, 34th floor
                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E: Ploppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                  protein
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                                                                                94.2%;
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                                                                                Score 49; I
Pred. No. 0.
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NUMBER OF SEQUENCES:

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NFORMATION FOR SEQ ID NO:
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MEDIUM TYPE: Floppy disk
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ITLE OF INVENTION:
                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
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OPERATING SYSTEM:
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                                                                                    150, Application US/08646360
                                                                      INFORMATION:
                                                                                                                                                                            24 RÁSQSVSSSYLA 35
                                                                                                                                                                                                        1 RASOSVSSSFLA 12
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                                                                                                                                                                                                                                                                                                                                                           amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cholas, Janet M
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09-DEC-1992
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                                        , Stephen F.
                                                                                                                                                                                                                                                    94.2%;
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       mmunotoxins Comprising Ribosome-Inactivating
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Pred. No.
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Matches
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TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                quence 42, Application US/08232081B
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APPLICATION NUMBER:
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                             DRRESPONDENCE ADDRESS:
                                               MBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: dou
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 ADDRESSEE:
STREET: F
                                                                                                                                                                                                                                                                                                                      Local
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                                                          E OF INVENTION:
                                                                                                                                    INFORMATION:
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                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Illinois
3: BIRCH, STEWART, KOLASCH AND BIRCH PO BOX 747
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500 West Madison Street, 34th floor
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                                                                                                                                                                                                                                                                                                      Conservative
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09-DEC-1992
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91.7%;
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JS-08-839-765-150
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Best Local &
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/839,765.
FILING DATE: 15-APR-1997
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/425,336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (703) 205-8050 INFORMATION FOR SEQ ID NO: . SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      quence 150,
APPLICATE: 12-PG.
FILING DATE: 12-PG.
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
APPLICATE: 09-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ent No.
                                                                                                     FILING DATE: 18-APR-1995
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
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NAME: SVENSON, LEONARD R
REGISTRATION NUMBER: 30,330
REFERENCE/DOCKET NUMBER: 20
PELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 22040-0747
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APPLICATION DATA:
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VENTION: Immunotoxins Comprising Ribosome-Inactivating
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son Street, 34th floor
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Pred. No. 0.015;
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; MOLECULE TYPE: protein
US-08-839-765-150
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
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                                                                                                    APPLICATION NUMBER: 08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: PCT/US94/05348
FILING DATE: 12-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/064,691
                                                                                                                                                                                     CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: 08/646,360
                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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                                                  PRIOR APPLICATION DATA:
PRIOR APPLICATION UMBER: US 07/988,430
                            PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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                                                                                               FILING DATE: 12-MAY-1993
                                                                                                                                                                                                                                             FILING DATE
                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ropology:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 11022US09/200-70.P3.C3
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Illinois
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500 West Madison Street, 34th floor
                                                                                                                                                                                                                                                                                                                                                                                        USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Studnika,
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BER: US 07/901,707
9-JUN-1992
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Pred. No.
                                                                                                                                                                                                                                                                                             Version #1.25
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Matches
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Best Local :
                                                          PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/064,691

PILING DATE: 12-MAY-1993
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INFORMATION FOR SEQ ID NO:
                            FILING DATE: 12-MAY-1
PRIOR APPLICATION DATA:
APPLICATION NUMBER: [
FILING DATE: 09-DEC-]
                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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                                                                                                                                                     APPLICATION NUMBER: US/09/136,389
FILING DATE: 18-AUG-1998
APPLICATION NUMBER: 08/646,360
FILING DATE: 13-MAY-1996
                                                                                                                     APPLICATION NUMBER: PCT/UFILING DATE: 12-MAY-1994
                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
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TORNEY/AGENT INFORMATION:
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                                        US 07/988,430
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Pred. No.
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NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 109 amino acid

OLECULE TYPE:

STRANDEDNESS: TOPOLOGY: li ATTORNEY/AGENT INFORMATION:
NAME: James F. Haley, Jr.,
REGISTRATION NUMBER: 27,794

TELECOMMUNICATION INFORMATION:

REFERENCE/DOCKET NUMBER:

, Esq. 94 MORPHO/5

CELEPHONE:

(212)596-9090

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Best Local
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INFORMATION FOR SEQ ID NO:
                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
PRIOR APPLICATION DATA:

APPLICATION NUMBER: EP 95 11 3021.0
FILING DATE: 18-AUG-1995
                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                          ent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS
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                                                         APPLICATION NUMBER:
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Y: USA
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                                                                                                                                                                                                               us James F. Haley, Jr., Esq. c/o Fish & Neave
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Pred. No. 0.015;
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Gaps

US-09-025-769B-16

Query Match Best Local Similarity

94.2**%**; 91.7**%**;

Score 49; DB 4; Length 109; Pred. No. 0.015; 1; Mismatches 0; Indels

0

Matches

11; Conservative

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RESULT 15
US-09-025-769B-47
                                                                                                                                                                                                                  Query Match 94.2%;
Best Local Similarity 91.7%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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 PPLICANT:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
RRENT APPLICATION NUMBER: US/09/025,769B
FILING DATE: 18-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAVE: James F. Haley, Jr., Esq. REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: MORPHO/5
LECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: EP 95 11 3021.0 FILING DATE: 18-AUG-1995
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New York
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                                                     Application US/09025769B
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                                                                                                                                                                                                                                                                                                                                                                                   110 amino acids
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Knappik, Achim
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ENTION: Protein/(Poly)peptide libraries
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foroney, Simon
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Search completed: June Job time: 2.82253 secs
                                                                                                                                        Query Match
Best Local :
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                                                                                                                                                                                                                                                                                   NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/025,769B
FILING DATE: 18-FEB-1998
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO) CURRENT APPLICATION DATA:
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                                                                                                                                                                                                     MOLECULE TYPE: protein
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLICANT: Ge, Liming
PLICANT: Morcney, Simon
PLICANT: Morcney, Simon
PLICANT: Plueckthun, Andreas
PLE OF INVENTION: Protein/(Poly)peptide libraries
MBER OF SEQUENCES: 373
RRESPONDENCE ADDRESS:
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                                                            24 RASOSVSSSYLA 35
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RATION NUMBER: 27,794
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1251 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
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              3, 2003,
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Pred. No. 0.015;
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GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd.

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Result
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Maximum Match
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Sequence:
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A;Cross-references: EMBL:X72491; NID:g441450; PIDN:CAA51159.1; PID:g441451 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                              R;Klein, R.; Jaenichen, R.; Zachau, H.G.
Eur. J. Immunol. 23, 3248-3271, 1993
A;Title: Expressed human immunoglobulin chi genes and their hypermutation.
A;Reference number: S40312; MUID:94080891; PMID:8258341
                                                                                                                                                                                                                                                                  A;Status: translation not shown A;Molecule type: mRNA A;Residues: 1-54 <KLE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: protein
A;Residues: 1-34 <GON>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Homo sapiens (man)
C;Date: 06-Mar-1994 #sequence_revision 23-Apr-1999 #text_change 23-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J. Immunol. 142, 3158-3163, 1989
A;Title: Structural and idiotypic characterization of the L chains of human IgM autoans A;Reference number: A30601; MUID:89215279; PMID:2496160
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C;Species: Homo sapiens (man)
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;Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 30-May-1997
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A;Title: Genetic basis for the cross-reactive idiotypes on the light chains of A;Reference number: A94135; MUID:87041448; PMID:3095834
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A; Residues: 1-54 < CHE>
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                                                                                                                                                                                                                                     ;Species: Homo sapiens (man)
;Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 09-May-1997
;Accession: 130607
;Goni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Car
                                                                                                               Molecule type: protein
Residues: 1-83 <GON>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goni, P.R.; Chen, P.P.; McGinn, Immunol. 142, 3158-3163, 1989
                                                                           Keywords: heterotetramer;
                                                                                                                                                   Status: preliminary
                                                                                                                                                                              Goni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson, D.; Sol. Immunol. 142, 3158-3163, 1989
Title: Structural and idiotypic characterization of the L chains of human IgM autoant Reference number: A30601; MUID:89215273; PMID:2496160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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Keywords: heterotetramer;
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Date: 21-May-1988 #sequence_revision
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                                                                           C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision
C;Accession: S34996
                                                              R; Wagner, S.D.; Luzzatto,
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           A; Title: V-kappa gene segments rearranged A; Reference number: S34076; MUID:93170387;
                                                                                                                                        Ig kappa chain V region -
                                                                                                                                                                              RESULT 8
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                                             Immunol. 23, 391-397, 1993
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R;Blaison, G;; Kuntz, J.L.; Pasquali, J.L.
Eur. J. Immunol. 21, 1221-1227, 1991
A;Title: Molecular analysis of V(kappa)III variable regions
A;Reference number: S16823; MUID:91243737; PMID:1903706
                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 7
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S16843
                                                                                                                                                                                                                     A;Residues: 1-87 <BLA>
                                                                                                                                                                                                                                  A; Molecule type: mRNA
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Eur. J. Immunol. 21, 1221-1227, 1991
A;Title: Molecular analysis of V(kappa)III variable regions of polyclonal
A;Reference number: S16823; MUID:91243737; PMID:1903706
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C;Species: Homo sapiens (man)
C;Date: 19-Feb-1994 #sequence_revision 10-Nov-1995 #text_change
C;Accession: S16843
                                                                                                                                                                                                                                                                                                                                                                                               Ig kappa chain V region - hum
C;Species: Homo sapiens (man)
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A;Residues: 1-87 <BLA>
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Best Local S
Matches 7
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Best Local
                                                                                                                                                           Superfamily: immunoglobulin V region; immunoglobulin; Keywords: heterotetramer; immunoglobulin
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                                                                       Matches
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                                                                                                                                                                                                                                                   Status: preliminary; translation
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                                 1 GASSRAT 7
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                                                                     Similarity 7; Conserv
GASSRAT
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                                                                                                                                        immunoglobulin homology < IMM>
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Pred. No. 1.8
0; Mismatches
                                                                                      Score 32;
Pred. No.
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Ig kappa chain V region C; Species: Homo sapiens
                                                                                                           RESULT 11
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C;Species: Homo sapiens (man)
C;Date: 19-Mar-1997 #sequence_revision 09-May-1997 #text_change 20-M:
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**Note of a human autoimmune response: preparation and sequencing of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of th
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;Species: Homo sapiens (man)
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A; Residues: 1-89 < WAG>
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Best Local S
Matches 7
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Description: Human IgM(+)IgD(+) cells, the major B cell subset
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Molecule type: mRNA
Residues: 1-91 <HEX>
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Accession: S37520
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Residues: 1-91 <KLE>
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100.0%; Pred. No.
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Pred. No. 1.8
0; Mismatches
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Pred. No.
                                human (fragment)
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A;Cross-references: EMBL:Z26613; NID:g405680; PIDN:CAA81366.1; PID:g405681 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Molecule type: mRNA
A;Residues: 1-92 <KLE>
A;Residues: 1-92 <KLE>
A;Cross-references: EMBL:Z26598; NID:g405668; PIDN:CAA81352.1; PID:g405669
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                            Ig kappa chain V region (V-kappa 3) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Klein, U.; Kueppers, R.; Rajewsky, K. submitted to the EMBL Data Library, September 1993 A;Description: Human IgM(+)|gD(+)|cells, the major A;Reference number: S37501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig kappa chain V region (V-kappa 3) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #te
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C;Keywords: heterotetramer; ir
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                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-92 < KLE>
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A; Residues: 1-92 < KLE>
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A; Accession: S37524
                                                                                                                                                                                             A;Reference number: S37501
A;Accession: S37519
                                                                                                                                                                                                                                   submitted to the EMBL Data Library, September 1993
A;Description: Human IgM(+) IgD(+) cells, the major B cell
                                                                                                                                                                                                                                                                       R;Klein, U.; Kueppers, R.; Rajewsky,
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                                                                                                                                                                                                                                                                                 Cross-references: EMBL:226597; NID:g405670; PIDN:CAA81351.1; PID:g405671
Superfamily: immunoglobulin V region; immunoglobulin homology
Keywords: heterotetramer; immunoglobulin
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;Molecule type: mRNA
;Residues: 1-92 <KLE>
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Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
Accession: 837517
                                                                                                                                                                                                                                                                                                                                                                                                                                   Klein, U.; Kueppers, R.; Rajewsky, K. bmitted to the EMBL Data Library, September 1993
Description: Human IgM(+)IgD(+) cells, the major B cell subset in the peripheral blook
Reference number: S37501
Accession: S37514
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bmitted to the EMBL Data Library, September 1993
Description: Human IgM(+) IgD(+) cells, the major B cell subset in the peripheral blood
Reference number: 837501
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450.095 Million cell updates/sec
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P09866 d genome po
P01622 homo sapien
P07029 homo sapien
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ID KV3E H01623
DT 21-JUL
DT 21-JUL
DT 15-JUL
DT 15-JUL
DE IG kap
OC Bukary
OC Mammal
OX NCBI_T
RN [1]
RP SEQUEN
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Q9jhw0 rattus norv	PSB7_RAT	,_	277	78.1	25	4.
P70195 mus musculu	PSB7_MOUSE	.,	277	78.1	25	44
Q99436 homo sapien	PSB7_HUMAN	_	277	78.1	25	43
O35955 mus musculu	PSBA_MOUSE	,_	273	78.1	25	42
P40306 homo sapien	PSBA_HUMAN	_	273	78.1	25	41
Q09841 schizosacch	PSB7_SCHPO	,,	267	78.1	25	40
Q04310 streptomyce	YAC9_STRCO	_	221	78.1	25	39
O32986 mycobacteri	RL22_MYCLE	_	175	78.1	25	38
P07456 bos taurus	IGF2_BOVIN	_	155	78.1	25	37
Q02280 drosophila	CIKE_DROME	_	1174	81.2	26	36
P12021 sus scrofa	APMU_PIG	ب	1150	81.2	26	35
P37935 schizophyll	MAY4_SCHCO	<u>_</u>	928	81.2	26	34

ALIGNMENTS

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Biochemistry 20:5816-5822(1981).
-!- MISCELLANBOUS: THIS CHAIN WAN GLOBULIN ACTIVITY.
PIR; A01892; K3HUSI.
HSSP; P80362; IWTL.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PP00047; ig; 1.
SMART; SM00406; IG; 1.
Immunoglobulin V region.
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15-JUL-1999 (
                  21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15 kppa chain V-III region WOL.
Homo sapiens (Human).
Eukaryota, Metazoa, Chordata; Craniata; Verte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              idiotypically cross-reactive group.";
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Andrews D.W., Capra J.D.;
Amino acid sequence of the variable regions of light chains
'Amino acid sequence of the variable regions of light chains
idiotypically cross-reactive human IgM anti-gamma-globulins of
                                                                                                                                                             KV3E_HUMAN
NCBI_TaxID=9606;
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Mammalia; Eutheria;
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
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Primates;
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                     Catarrhini; Hominidae; Homo
                                      Craniata; Vertebrata; Euteleostomi;
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RESULT 4

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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
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PIR; A01893; K3HUGO.
HSSP; P80362; 1WTL.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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20-MAR-1987 (Rel.
15-JUL-1999 (Rel.
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Andrews D.W., Capra J.D.;
"Amino acid sequence of the variable
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HSSP; P80362; 1WTL.
InterPro; IPR003006;
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"Autoantibody-associated kappa light chain variable region gene
expressed in chronic lymphocytic leukemia with little or no some
mutation. Implications for etiology and immunotherapy.";
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HSSP; P80362; 1WTL.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1990 (Rel.
15-JUL-1999 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR003006; InterPro; IPR003596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kipps T.J., Tomhave E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=88171307; PubMed=3127527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
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- DISEASE: THE PROTEIN IS ONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LEUKEMIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HUMAN
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7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GASSRAT 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Rel. 16, Created)
(Rel. 16, Last sequence update)
(Rel. 38, Last annotation update)
ain V-III region HIC precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                V region; Signal
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38, Last annotation update)
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JK1 SEGMENT.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 32;
Pred. No.
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COMPLEMENTARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               129 AA.
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                                                                                                                                                                                                        immunotherapy.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHRONIC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 129;
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RESULT 7

KV3F_HUMAN

ID KV3F_HUMAN

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Best Local
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SEQUENCE
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NON TER
SEQUENCE
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SMART; SM00406; IGv;
                                                                                                                                                                                                                                                                                                                        a small family of germ
Nature 307:77-80(1984)
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Mammalia; Eutheria;
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21-JUL-1986
                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=84093600; PubMed=6419127;
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                                                                                                                                                                                                                               mmunoglobulin
                                                                                                                                                                                                                                                            nterPro; IPR003006; Ig_MHC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               1-JUL-1986
5-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mmunoglobulin
                                                                                                                                                                                                                                                                                        IR; A01894; K3HUNG.
SSP; P80362; 1WTL.
                                                                                                                                                                                                                                                                                                             - MISCELLANEOUS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HUMAN
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                                                                                                                                                                                                                                                                                                                                   kappa immunoglobulin mRNA in human lymphocytes is homologous to l family of germ-line V genes.";
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                                                                                                              Similarity 6; Conser
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                                                                   GATSRAT 61
                                                                                        GASSRAT 7
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                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                (Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
in, V-III region NG9 precursor (Fragment).
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                                                                                                                Conservative
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                                                                                                                                                                                                                               V region; Signal; Hybridoma.
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           STANDARD;
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                                                                                                                                                                                                                                            IGV; 1.
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100.0%; P
ative 0;
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                                                                                                                         90.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                             Score 29; DB
Pred. No. 3.3;
1; Mismatches
                                                                                                                                                                                 IG KAPPA CHAIN V-III REGION NG9
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPLEMENTARITY-DETERMINING-3.
JK1 SEGMENT.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 32;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IG KAPPA CHAIN V-III REGION HIC.
FRAMEWORK-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                            5D9AF363CC52632F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7395528EA2BB74D6 CRC64;
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                                                                                                                                    Length 100;
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RESULT
KV3J_HU
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                   LT 8
HUMAN
                                                                   EMBL; X02725; -; NOT
PIR; A01901; K3HUVH.
                                                                                                      entities requires a license agreement ( or send an email to license@isb-sib.ch)
                                                                                                                             use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                     between the Swiss Institute of Bioinf
the European Bioinformatics Institute.
                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=85087932; PubMed=6440122;
                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through
                                                                                                                                                                                                       Nucleic Acids Res. 12:9229-9236(1984).
                                                                                                                                                                                                                            Pech M., Zachau H.G.;
"Immunoglobulin genes of different subgroups are interdigitated
                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                  13-AUG-1987
13-AUG-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
17 kappa chain V-III region POM.
                                                                                                                                                                                                                                                                                                                                                                                           P04434;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00047; 1g; 1.
SMART; SM00406; IGv;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLOBULIN ACTIVITY.
PIR; A01897; K3HUPM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - ! - MISCELLANEOUS: THIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The amino acid sequence of the variable regions of the light chains from two idiotypically cross reactive IgM anti-gamma globulins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=76276460; PubMed=60899;
Klapper D.G., Capra J.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                fomo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nterPro; IPR003006; Ig_MHC
                                                                                                                                                                                                                                                                                                                                       -AUG-1987 (Rel. 05, Last sequence update)
-JUL-1999 (Rel. 38, Last annotation update)
kappa chain V-III region VH precursor (Fra
                                                                                                                                                                                                                                                                                                                                                                                                        HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51 GASTRAT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GASSRAT 7
                                                                                                                                                                                                                    the VK locus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lobulin V region.
D 23 89
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11922 MW;
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Pfam; PF00047; 1g; SMART; SM00406; IG

V region; Signal.

InterPro; IPR003006; Ig_MHC InterPro; IPR003596; Ig_v.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institu
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MEDLINE=86177570; PubMed=3083417;
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Mammalia; Eutheria;
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01-NOV-1990 (Rel. 16, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
19 kappa chain V-III region CLL precursor (Rheumatoid factor).
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1; Mismatches
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COMPLEMENTARITY-DETERMINING-3
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COMPLEMENTARITY-DETERMINING-2.
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COMPLEMENTARITY-DETERMINING-1.
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COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK-2.
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                                                                                                                                                                                                                                                                                                  coelicolor A3(2).",
Nature 417:141-147(2002).
-i- FUNCTION: IS NEEDED FOR CORRECT CYCLIZATION OF THE OLIGOKETIDE
LEADING TO ISOCHROMANEQUINONE FORMATION.
-i- PATHWAY: Polyketide antibiotic actinorhodin biosynthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                    Bentley S.D., Chater K.F., Cerdeno-Tarraga A.-M., Challis G.L., Thomson N.R., James K.D., Harris D.E., Quall M.A., Kleser H., Harper D., Bateman A., Brown S., Chandra G., Chen C.W., Collins Cronin A., Fraser A., Goble A., Hidalgo J., Hornsby T., Howarth Huang C.-H., Kleser T., Larke L., Murphy L., Oliver K., O'Neil & Rabbinowitsch E., Rajandream M.A., Rutherford K., Rutter S., Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylow Warren T., Wietzorrek A., Woodward J., Barrell B.G., Parkhill J.
                                                           InterPro; IPR005031; Polyket cyc. Pfam; PF03364; Polyketide cyc; 2. Antiblotic blosynthesis; Complete
                                                                                                                            EMBL; AL593842;
                                                                                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It between the Swiss Institute of Bioinfo the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Nucleotide sequence and deduced functions of a set of cotranscribed genes of Streptomyces coelicolor A3(2) including the polyketide synthase for the antibiotic actinorhodin.";
J. Biol. Chem. 267:19278-19290(1992)
                                                                                                            PIR; S25843; S25843.
                                                                                                                                                EMBL;
                                                                                                                                                                                           modified and this statement is not removed. entitles requires a license agreement (See
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SCO5090 OR SCBAC28G1.16.
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Howarth S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Taylor K.
                                                                                                                                                                                                                                                                       a collaboration
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GANSRAT 304

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RESULT 12
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ID SRYA DROSU
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DT 01-NC
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Matches 6
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ProDom; PD001549; NAD G193P Ah; 1.

PROSITE, PS00957; NAD G3PDH; FALSE NEG.

Phospholipid biosynthesis; Oxidoreductase; NAD; Complete proteome.

                                                                          Q07965;
01-NOV-1995
01-NOV-1995
01-FEB-1996
                                                                                                                                            SRYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (s or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nature 396:133-140(1998).
-!- CATALYTIC ACTIVITY: Sn-glycerol 3-phosphate + NAD(P)(+)
glycerone phosphate + NAD(P)H.
-!- PATHWAY: De novo phospholipid biosynthesis; glycerol-3
                                               Serendipity locus a SRY-A OR SRY-ALPHA.
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              Drosophila subobscura (Fruit fly)
Eukaryota; Metazoa; Arthropoda; Ma
                                                                                                                                                              DROSU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AJ235271; CAA14899.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Andersson S.G.E., Zomorodipour A., Andersson J.O., Sicheritz-Ponten T., Alsmark U.C.M., Podowski R.M., Naeslund Briksson A.-S., Winkler H.H., Kurland C.G.; "The genome sequence of Rickettsia prowazekii and the origin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Glycerol-3-phosphate dehydrogenase [NAD(P)+]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         - ! - SUBCELLULAR LOCATION:
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Andersson S.G.E., Zomorodipour A.
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STRAIN=Madrid
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                                                                                                                                             DROSU
                                                                                                                                                                                                                                                                                                                                                                                                                  Pro; IPR001652; NAD_Gly3P_dh.
PF01210; NAD_Gly3P_dh; 1.
S; PR00077; GFDHDRGNASE.
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                                                                                                                                                                                                                                                                                        Conservative
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Rickettsieae; Rickettsia.
Arthropoda; Mandibulata; Neoptera; Endopterygota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ormatics Institute. There are no restinstitutions as long as its content attement is not removed. Usage by an
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O THE NAD-DEPENDENT GLYCEROL-3-PHOSPHATE
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Pred. No. 11;
1; Mismatches 0; Indels
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Pancrustacea; Hexapoda;
Diptera; Brachycera;
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21-JUL-1986
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or send a
                 Pfam; PF00047; 1g; 1.

SMART; SM00406; IGv; 1.

Immunoglobulin V region; Bence-Jones
DISULFID 23 89
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                                                                                                                                                 InterPro;
InterPro;
                                                                                                                                                                                                  PIR; A01891; K3HUB6.
HSSP; P80362; 1WTL.
                                                                                                                                                                                                                                                                 "The basic sequences of immunoglobulin ka
of Bence Jones proteins Rad, Fr4 and B6."
FEBS Lett. 2:301-304(1969).
                                                                                                                                                                                                                                                                                                                                              SEQUENCE.
Milstein C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
  SEQUENCE
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                                                                                                                                                                                                                                          - 1 - MISCELLANEOUS:
                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; L19535; AAA17044.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ibnsouda S., Schweisguth F., de Billy G., Vincent A.;
"Relationship between expression of serendipity alpha and
cellularisation of the Drosophila embryo as revealed by interspecific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FlyBase;
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NCBI_TaxID=7241;
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IPR003596; Ig_v.
0047; ig; 1.
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  108 AA;
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3 AA; 61450 MW;
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Primates;
  11635 MW;
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Pred. No. 19;
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8BC14FF07A419E3D CRC64;
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Hinuma S., Habata Y., Fujii R., Kawamata Y., Hosoya M., Fu
Kitada C., Masuo Y., Asano T., Matsumoto H., Sekiguchi M.,
Kurokawa T., Nishimura O., Onda H., Fujino M.;
"A prolactin-releasing peptide in the brain.";
"A prolactin-releasing peptide in the brain.";
                                                                                                                                                                                   use by non-profit institutions account. Usage by and row woodlied and this statement is not removed. Usage by and row wow.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE SPECIFICITY.

MEDLINE=99426652; Pubmed=10498338;

Fujii R., Fukusumi S., Hosoya M., Kawamata Y., Habata Y.,

Sekiguchi M., Kitada C., Kurokawa T., Nishimura O., Onda i
Sumino Y., Fujino M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Prolactin-releasing peptide precursor (FRRP) (Prhormone) [Contains: Prolactin-releasing peptide
                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nature 393:272-276(1998).
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                                                                                                                                                                                                                                                                                                          expression of prolactin through its recepto lactotrophs directly to secrete PRL. TISSUE SPECIFICITY: Widely expressed, with
                                                                                                                                                                                                                                 European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                   medulla oblongata and hypothalamus.
                                                                                                                                                                                                                                                                                                                                                    FUNCTION: Stimulates prolactin
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PROLACTIN-RELEASING PEPTIDE PRRP20.
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PROSITE; PS00216; SUGAR_TRANSPORT_1;
PROSITE; PS00217; SUGAR_TRANSPORT_2;
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Hexose transporter HXT15.
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PRINTS; PR00171; SUGRTRNSPORT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produbetween the Swiss Institute of Bioinformatics

    -i- SUBCELLULAR LOCATION: Integral membrane protein.
    -i- SIMILARITY: BELONGS TO THE SUGAR TRANSPORTER FAMILY.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Sequencing analysis of a 4.1 kb subtelomeric region from yeast chromosome IV identifies HXT15, a new member of the hexose transporter family.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes,
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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InterPro; IPR003662; sub_transporte
                                                                                                                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute
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D., Gomez A., P
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Query Match 84.4%; Score 27; DB 1; Length 567;
Best Local Similarity 85.7%; Pred. No. 62;
Matches 6; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 GASSRAT 7
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Search completed: June 3, 2003, 08:15:48

Job time: 2.64505 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd

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Result
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sp_virus:*
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Q9UL85
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Q53755 streptomyce
Q912y8 pseudomonas
Q94k93 arabidopsis
Q9wyn6 thermotoga
                                                                                             Q9ul85 homo sapien
Q92z27 rhizobium m
Q9eeg5 arabidopsis
Q9ln63 arabidopsis
Q9f152 bifidobacte
                                                                     Q9ybu5 aeropyrum p
Q9ul86 homo sapien
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SEQUENCE
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; 1g; 1.
SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                             SEQUENCE FROM M....
MEDLINE=98277139; PubMed=9614934;
Tim R.. Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                         Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                     01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MEC-2001 (TrEMBLrel: 19, Last annotation update)
Myosin-reactive immunoglobulin light chain variable region
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AF035036; AAD56272.1; -.
51 GASSRAT 57
                    1 GASSRAT 7
                                             Similarity 7; Conserv
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                                             Conservative
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                                                                                                                                   STRAIN=A3(2) / M145;

Bentley S.D., Chater K.P., Cerdeno-Tarraga A.-M., Challis G.L.,

Thomson N.R., James K.D., Harris D.B., Quail M.A., Kieser H.,

Harper D., Bateman A., Brown S., Chandra G., Chen C.W., Collins M.,

Cronin A., Fraser A., Goble A., Hidalgo J., Hornsby T., Howarth S.,

Huang C.-H., Kieser T., Larke L., Murphy L., Oliver K., O'Neil S.,

Rabbinowitsch E., Rajandream M.A., Rutherford K., Rutter S.,

Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylor K.,

Warren T., Wietzorrek A., Woodward J., Barrell B.G., Parkhill J.,
                                                                         Hopwood D.A.;
"Complete genome sequence of coelicolor A3(2).";
Nature 417:141-147(2002).
EMBL; AL161755; CAB82022.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q68986;
01-NOV-1996
01-NOV-1996
01-JUN-2001
                                                       Hypothetical SEQUENCE 1
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                                                                                                                                                                                                                                                                                      Bacteria; Firmicutes; Actinobacteria; Actinobacteridae; Actinomycetales; Streptomycineae; Streptomycetaceae; St
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EMBL; U29658; AAB19069.
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Viruses; Retroid viruses; Retroviridae.
NCBI_TaxID=11827;
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                                                 protein.
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     Conservative
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(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 17, Last annotation updat
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              90.6%;
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  1; Mismatches
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              Score 29;
Pred. No.
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Pred. No.
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                                                 F68C78C5C767E092 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                            107
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                        MEDLINE-2136509; PubMed=11481432;
Barnett M.J., Fisher R.F., Jones T., Komp C., Abola A.P.,
Barloy-Hubler F., Bowser L., Capela D., Galibert F., Gouzy J.,
Gurjal M., Hong A., Huizar L., Hyman R.W., Kahn D., Kahn M.L.,
Kalman S., Keating D.H., Palm C., Peck M.C., Surzycki R., Wells
Yeh K.-C., Davis R.W., Pederspiel N.A., Long S.R.;
"Nucleotide sequence and predicted functions of the entire
Sinorhizobium meliloti pSymA megaplasmid.";
Proc. Natl. Acad. Sci. U.S.A. 98:9883-9888 (2001).
                                                                                                                                                                                                                      Hypothetical protein RA0684.
RA0684 OR SMA1254.
Rhizobium meliloti (Sinorhizobium meliloti)
Plasmid pSymA (megaplasmid 1).
Bacteria; Proteobacteria; alpha subdivision
Rhizobiaceae; Sinorhizobium.
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01-DEC-2001 (TrEMBLrel. 19,
01-MAR-2002 (TrEMBLrel. 20,
Hypothetical protein RA0684.
                                                                                                                                                                            SEQUENCE FROM N.A.
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SMART; SM00406; IGv; 1.
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NON_TER 109 109
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HSSP; P80362; 1V
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01-MAY-2000 (TrEMBLrel. 13,
01-DEC-2001 (TrEMBLrel. 19,
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01-MAY-2000
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Mammalia_ Eutheria; Primates; Catarrhini; Hominidae;
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Best Local
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Kim C., Alt
Conway A.,
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Q9SEG5;
01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Molecular Cloning and Characterization of a Gibberelli
Gene from Arabidopsis thaliana.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases
EMBL; AP134217; AAF22161.1; -
SEQUENCE 335 AA; 36545 MW; 7B101929E464748B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                 Arabidopsis thaliana (Mouse-ear cress).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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01-OCT-2000 (TrEMBLrel. 15, La
01-MAR-2002 (TrEMBLrel. 20, La
F1801-7 (At1919350/F18014-4).
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STRAIN=CV. COLUMBIA;
Kwon H.-B.;
                                                                                                                                                                             Shinn P., Brooks S., Buehler E., Chao Q., Johnson-Hopson C., Khan S Shinn P., Brooks S., Buehler E., Chiou J., Choi E., Conn L., Kim C., Altafi H., Bei Q., Chin C., Chiou J., Choi E., Conn L., Conway A., Gonzales A., Hansen N., Howing B., Koo T., Lam B., Lee J Lenz C., Li J., Liu A., Liu K., Liu S., Mukhareky N., Nguyen M., Palm C., Pham P., Sakano H., Schwartz J., Southwick A., Thaveri A., Toriumi M., Vaysberg M., Yu G., Federspiel N.A., Theologis A.,
                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=3702;
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Bukaryota; Viridiplantae; Streptophyta; Embryo
Spermatophyta; Magnoliophyta; eudicotyledons;
eurosids II; Brassicales; Brassicaceae; Arabio
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SEQUENCE FROM N.A.
Cheuk R., Chen H., Kim C.J., I
Bowser L., Carninci P., Chang
                                                                                                Submitted
                                                                                                                                                               Toriumi M., Vaysberg M., Ecker J.R.;
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01-MAY-2000
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Pred. No. 53;
1; Mismatches
  Koesema E., Meyers M.C., I
g E., Dale J.M., Goldsmith
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Pred. No.
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"Sequence analysis of pKJ36 from Bifidobacterium longum.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF139129; AAG43281.1; -.
InterPro; IPR005053; MobA_MobL.
Pfam; PF03389; MobA_MobL; 1.
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01-MAR-2001
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Bacteria; Firmicutes; Actinobacteria; Parmicutes; Bifidobacteriaceae;
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Hypothetical protein APE1504.
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STRAIN=K1;
MEDLINE=99310339; PubMed=10382966;
                                                                                    Archaea; Crenarchaeota;
Desulfurococcaceae; Aerc
NCBI_TaxID=56636;
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SEQUENCE 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AEDLINE=98277139; PubMed=9614934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AP000061; BAA80503.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crenarchaeon, Aeropyrum pėrnix Kl.";
DNA Res. 6:83-101(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P80362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunol. Immunopathol. 87:184-192(1998) AF035028; AAD56264.1; -.
                                                                                                                                                                                                                                                                       51
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                                                                                                                                                                                                                                                                  GTSSRAT 57
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109 AA;
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                                                                                   (Tremburel. 12, (Tremburel. 12, 1) (Tremburel. 20, 1)
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32 AA; 11113 MW; 3073B53A9E6C6968 CRC64;
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EMBLrel. 19, Last annotation update)
immunoglobulin kappa chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                             11928 MW;
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85.7%;
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Last
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Pred. No. 46;
0; Mismatches 1; Indels
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Pred. No.
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Desulfurococcales;
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ai A., Kosugi H.,
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GAEEEE BOOK

Hypothetical PA1749.

Pseudomonas aeruginosa. Bacteria; Proteobacteria; gamma

subdivision; Pseudomonadaceae;

Pseudomonas.

Q912Y8 Q912Y8; Q1-MAR-2001 Q1-MAR-2001 Q1-OCT-2001

PRELIMINARY;

PRT;

161

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(TrEMBLrel. 16, (TrEMBLrel. 16, (TrEMBLrel. 18, 1 protein PA1749.

Last sequence update)

Created)

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Q53755;
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
Minor sigma-like factor (RpoZ) (Fragment).
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DNA Res. 6:83-101(1999).
EMBL; AP000060; BAA79897.1; -
Hypothetical protein; Complete protein
SEQUENCE 119 AA; 12285 MW; 05ED4:
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NCBI_TaxID=56636;
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Jin-no K., Takahashi M., Sekine M., Baba S.-I., Ankai A.
Hosoyama A., Pukui S., Nagai Y., Nishijima K., Nakazawa
Takamiya M., Masuda S., Funahashi T., Tanaka T., Kudoh Y
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Nakamura Y., Nomura N., Sako Y., Kikuchi H.;
"Complete genome sequence of an aerobic hyper-thermophilic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=99310339;
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                                                                                                                                                                                                                                                                                                          141 AA;
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                                                                                                                                                                                                                                                                                                             14996 MW;
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85.7%;
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85.7%;
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Pred. No.
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05ED45A38A43879F CRC64;
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STRAIN=ATCC 15692 / PAO1;

STRAIN=ATCC 15692 / PAO1;

KMEDLINE=20437337; PubMed=10984043;

Kiover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., War Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Hickey M.J., Brinkman F.S.L., Folger K.R., Westbrock-Wadman S., Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Smith K.A., Spencer D.H., Wong G.K.-S., Mu Z., Paulsen I., Smith K.A., Spencer D.H., Hancock R.E.W., Lory S., Olson M.V.

Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olson M.V.

"Complete genome sequence of Pseudomonas aeruginosa PAO1, opportunistic pathogen.";
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                                                             Q9WYN6;
01-NOV-1999 (TrEMBLrel.
01-NOV-1999 (TrEMBLrel.
01-OCT-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yamada K., Liu S.X., Sakano H., Pham P.K., Banh J., Chung M
Goldsmith A.D., Lee J.M., Quach H.L., Tang C., Toriumi M.,
Bowser L., Carninci P., Chen H., Cheuk R., Hayashizaki Y.,
Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Kim C., K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
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85.7%; Pred. No. 89;
tive 1; Mismatches
                    12, Created)
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oxidoreductase, beta subunit,
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Уч. G.,
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STRAIN-MSB8 / DSM 3109;

STRAIN-MSB8 / DSM 3109;

KMEDLINE-99287316; PubMed=10360571;

KMEDLINE-99287316; PubMed=10360571;

KMEDLINE-99287316; PubMed=10360571;

Nelson K.E., Clayton R.A., Gill S.R., Gwinn M.L., Dodson Haft D.H., Hickey E.K., Peterson J.D., Nelson W.C., Ketch M. Connald L., Utterback T.R., Malek J.A., Linher K.D., Ketch M. Cotton M.D., Pratt M.S., Phillips C.A., Gid Stewart A.M., Cotton M.D., Pratt M.S., Phillips C.A., Rickey Heidelberg J., Sutton G.G., Fleischmann R.D., Eisen J.A., Salzberg S.L., Smith H.O., Venter J.C., Fraser C.M.;

"Evidence for lateral gene transfer between Archaea and B genome sequence of Thermotoga maritima.";

Nature 399:323-329(1999).
                                                                                                                                                                                                                                   EMBL; AE001720; AAD35490.1; -.
TIGR; TM0405; -.
InterPro; IPR000399; TPP_enzyme.
Pfam; PF02775; TPP_enzymes_C; 1:
                                                                                                                                                                                                       SEQUENCE 266 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=2336;
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Bacteria; Thermotoga
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                                                                    GCSSRAT 59
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                                                                                                                                       Conservative
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85.7%;
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Pred. No. 1.2e+02;
0; Mismatches 1
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Bisen J.A., White O.,
                                                                                                                                                                     Length 266;
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Garrett M.M.,
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Gapop 10.0 , Gapext 0.5
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32
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Copyright (c) 1993 - 2003 Compugen Ltd.
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295.776 Million cell updates/sec
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AAP51247
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Human anti-HBs ant Antibody light chain Human light chain Human trkC antibod Human Kappa III li Sequence that corr Ig idiotypic deter Human anti-CD40 mo CB21E12 kappa chai
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human V-kappa Human V-kappa	AAR62	15 4	116	100.0	32	.4.
	AAU8128	23	112	100.0	ب د د) V
Human trkC antibod	AAU8128	23	112		32	, 1
HLA-DR-specific	ABBS	23	110	•	32	0
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Human HIV-1 monoci		22	110	100.0	32	
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Human Ab light	_	18	110	100.0	32	N
IL-4		23	109	100.0	32	,
6		23	109	100.0	32	0
HIV-1	AAB627	22	109	•	32	v
Human HIV-1 monoc		22	109	100.0	32	8
Human V kappa subg	AAW840	20	109	100.0	32	7
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o	AAO:	23	108	•	32	Çī
Human anti-CD40		23	108		32	44.
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anti-C		23	108		32	N
HIV-1		22	108	•	32	_
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anti	AAB5220	21	108	•	32	7
IL-4 re		23	107	100.0	32	თ
HIV-1	AAB6277	22	107	100.0	32	u
		19	107	100.0	32	44
lambda	AAR3859	14	107	100.0	32	ω
light	AAW317	18	106	100.0	32	2
Human anti-CD40	ABG30468	23	105	100.0	32	_

ALIGNMENTS

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Claim 11; Page 13; 27pp; Japanese.	Novel anti-hepatitis B monoclonal antibody used for the prevention hepatitis B $\ \boldsymbol{\cdot} \ $	WPI; 2000-675345/66.	(NISN) NISSHINBO IND INC. (MEIP) MEIJI MILK PROD CO LTD.	09-MAR-1999; 99JP-0061930.	09-MAR-1999; 99UP-0061930.	19-SEP-2000.	JP2000253878-A.	Homo sapiens.	Anti-hepatitis B monoclonal antibody; human; hepatitis B; preventiantinflammatory; hepatotrophic.	Human anti-HBs antibody heavy chain CDR-2 peptide SEQ ID 16.	22-FEB-2001 (first entry)	AAB52198;	T 1 198 AABS2198 standard; Peptide; 7 AA.

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Matches 7
The invention relates to an antibody or antigen binding domain (or fragment, variant or derivative), which binds to an osteoprotegrin binding protein (OPGbp) and which is an antagonistic antibody. The antibody or antigen binding domain may be administered to inhibit osteoclast formation or activation, inhibit bone resorption in a mammal, prevent or treat loss of bone mass in a mammal and to prevent or treat tumour cell growth in bone. The loss of bone mass results from osteoporosis, metastasis of cancer to bone, rheumatoid arthritis, hypercalcaemia of malignancy and steroid-induced osteoporosis. The present sequence is an antibody light chain variable region complementarity determining region, CDR2, which can be incorporated into an antibody/antigen binding domain of the invention.
                                                                                                                                                                                                                                                                                     Antibodies that bind antagonistically to osteoprotegrin binding protein, useful for treating osteoporosis, metastasis of cancer bone, rheumatoid arthritis, hypercalcaemia of malignancy and steroid-indicad osteoporosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-FEB-2000;
22-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention relates to a human anti-hepatitis B monoclonal antibody. Included in the invention are polynucleotide sequences AAC96948 - AAC96955 which encode fragments of the heavy and light chains of the antibody. Proteins and peptides represented by sequences AAB5215 - AAB52210 are fragments of the anti-hepatitis B light and heavy chains. Also included in the invention are PCR primers AAC96977 which are used in the construction of the antibody. The antibody exhibits antiinflammatory, and hepatotrophic activity, and can be used in a drug effective at preventing hepatitis B infection.
                                                                                                                                                                                                                                      Claim 14; Page 129; 239pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                           Deshpande RV,
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                                                                                                                                                                                                                                                                                                                                                                                                                                               (AMGE-') AMGEN INC.
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2001US-0791153
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Pred. No. 7.8e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                       Sullivan JK;
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RESULT 3
AAB67499
ID AAB6
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Best Local S
Matches 7
                                                                                                an immune response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for
                                                                 treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin-dependent
                                  host disease.
                                                                                                                                                                                                                                                                                   AAB67490-99 and AAB67501-06 represents complementarity determining regions (CDRs) of human antibodies. The antibodies specifically bind thuman cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging
                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human sequence antibody that binds to human cytotoxic T
lymphocyte associated antigen-4, useful for inducing, augment
prolonging immune response to antigen or for suppressing immun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 autoimmune disease; infectious disease; inflammation; allerg rheumatoid arthritis; myasthenia gravis; lupus erythematosus
                                                     diabetes mellitus,
                                                                                                                                                                                                                                                                                                                                                                                     Claim 31; Page 100; 127pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple sclerosis; insulin-
transplant rejection; graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Complementarity determining region; CDR; immune response; antibody; cytotoxic T_lymphocyte_associated antigen-4; CTLA-4; B7 ligand; can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-202933/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-AUG-2000; 2000WO-US23356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB67499 standard; peptide; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MEDA-) MEDAREX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB67499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                         in patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GASSRAT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Halk EL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0150452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complementarity determining region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     insulin-dependent diabetes mellitus; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infectious disease; inflammation; allergy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 32; DB 22;
100.0%; Pred. No. 7.8e+05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lonberg N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  versus host disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В7
                                                                                                                                                                                                                                                                                                                                                                                                                                            augmenting
ing immune
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Best Local S
   Best Local Similarity
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                                                                                                                                                                     lateral scierosis, nerve cell injuries, disorders of insufficient blood cells such as leukopaenia including eosinopaenia, basopaenia, lymphopaenia, monocytopaenia, neutropaenia, Alzheimer's disease, Parkinson's disease, Huntington's disease and tumours. The sequences are also useful for inducing angiogenesis for treating wounds, ulcers and diabetic complications of sickle cell disease, for treating cardiac ischaemia and cerebrovascular disorders and in the diagnosis of diseases involving cellular degeneration. Sequences AAU81229-AAU81284 represent human and mouse anti-trkC agonist monoclonal antibodies and antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; mouse; anti-trkC agonist monoclonal antibody; trkC; antibody; trkA; trkB; cisplatin-induced neuropathy; pyridoxine-induced neuropathy; peripheral neuropathy; diabetic neuropathy; neurodegenerative disease; large-fibre sensory neuropathy; amyotrophic lateral sclerosis; tumour; nerve cell injury; blood cell disorder; leukopaenia; eosinopaenia; wound; basopaenia; lymphopaenia; monocytopaenia; neutropaenia; cancer; ulcer; lzheimer's disease; Parkinson's disease; Huntington's disease; diabetes; sickle cell disease; cardiac ischeemia; cerebrovascular disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                   effective in the treatment of cisplatin- or pyridoxine-induced neuropathy, peripheral neuropathy, diabetic neuropathy and large-fibre sensory neuropathy, neurodegenerative disease including amyotrophic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel anti-trkC agonist monoclonal antibody useful for treating neurodegenerative disease, shows no significant cross-reactivity trkA/trkB, and recognizes epitope in domain 5 of trkC -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to an anti-trkC agonist monoclonal antibody which shows no significant cross-reactivity with trkA or trkB, and recognizes an epitope in domain 5 of trkC. The antibodies of the invention are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-JUN-2000; 2000US-213141P.
05-OCT-2000; 2000US-238319P.
                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 13; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-130790/17.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cellular degeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human trkC antibody light chain CDR2 of variable region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH . INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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100.0%; Pr
   100.0%;
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ټ
   Score
Pred.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shelton DL;
32;
No.
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ches 0;
   DB 23;
7.8e+05;
                           Length
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RESULT 5
AAU70332
ID AAU7
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Disclosure; Page 14; 129pp;
                                                   Preparing immunoglobulin binding protein array in plant cells by transforming the cells with different polynucleotides encoding b protein polypeptides specific to ligand, selecting plant cells f
                                                                                                                                                                      Hiatt
                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunoglobulin; antibody; light chain; heavy chain; CDR; FR; complementarity determining region; framework region; IgBP; transgenic plant; immunoglobulin binding protein array; IgM; IgG; IgA; IgD; IgE; IgY; IgM; kappa; lambda; CHBP.
                                                                                                                                                                                                                                               02-MAY-2000; 2000US-0563222
                                                                                                                                                                                                                                                                                    02-MAY-2001; 2001WO-US14349
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                                                                                                                                                                                                                                                                                                                                                               WO200183806-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU70332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU70332 standard; Peptide; 7 AA.
                                                                                                                                                                                                          (EPIC-) EPICYTE PHARM INC.
                                                                                                                                                                    AC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kappa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7;
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English
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                                                      for for
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encoding different immunoglobulin binding protein (IgBP) polypeptides that specifically bind to a ligand or form one or more disulphide bonds with polypeptides in transfected cells, to generate an IgBP that binds to a ligand, and transfected plant cells are selected, and preparing an IgBP array in plant cells. At least one peptide sequence has at least 75% sequence identity to a framework region (FR) of a native IgM, IgD, IgE, IgY, kappa or lambda immunoglobulin molecule. The method is useful for preparing an immunoglobulin binding protein array, preferably heavy chain binding protein (CHBP) array in eukaryotic cells especially plant cells (e.g. Agrobacterium tumefaciens or maize) or other eukaryotic cells (e.g. Agrobacterium tumefaciens cells). The CHBP is useful for discovery of e.g. screening assays of IgBPs having desired characteristics. The present sequence is a mammalian The invention relates to transforming a population of cells (e.g. plant cells), comprising using a library of two different polynucleotides the invention. mmunoglobulin derived peptide that may be incorporated into an IgBP of

Sequence A

밁 8 Query Match Best Local S Matches 7 Similarity 100 7; Conservative GASSRAT 7 GASSRAT 100.0%; 0 Score 32; I Pred. No. 7. 멂 .8e+05; g 0; Length Indels **;**

Gaps

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AAP51247
ID AAP5
                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                           idiotypic antigenic determinants on immunoglobulin molecules elicit prodm. of antibodies which are useful for treatment of autoimmune disease and diseases of beta-lymphocytes and which also useful in diagnostic tests. The immunoglobulin may be a rheumatoid factor of the IgM class.
         Synthetic
                                                                                                                           AAR15365 standard; peptide; 14 AA.
                                Rheumatoid
                                                                                05-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                         The synthetic polypeptides of the invention (AAP51243-P51237) mimic
                                                      Ig idiotypic determinant PSL2.
                                                                                                         AAR15365
                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 4; Page 69; 86pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          New synthetic polypeptide(s) - for inducing antibody prodn. for treatment of autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1985-171405/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carson DA, Fong S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-DEC-1984;
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03-AUG-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Idiotpyic antigenic determinant; immunoglobulin; antibody;
autoimmune disease; therapy; beta-lymphocyte; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAP51247;
                                                                                                                                                                                                                                                                                                                       (Updated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SCRI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAP51247 standard; peptide; 14
                                                                                                                                                                                               N
                                                                                                                                                                                                                                             Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCRIPPS CLINIC RES
                                                                                                                                                                                                                                                                                                                  on 03-OCT-2002 to add missing
                                                                                                                                                                                                                      GASSRAT 7
                                                                                                                                                                                               GASSRAT
                            factor; RF; Sie; antigen;
                                                                                                                                                                                                                                                                                              14 AA;
                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Houghten R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              at corresp. to the sequence of an idiotypic antigenic of an immunoglobulin.
                                                                                (first
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(first entry)
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                                                                               entry
                                                                                                                                                                                                                                                        100.0%;
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                                                                                                                                                                                                                                         Score 32; DB 6
Pred. No. 1.7;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vaughan JH,
                          light chain; CDR; IgM
                                                                                                                                                                                                                                                                                                                    စ္တ
                                                                                                                                                                                                                                                                                                                    field.)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         anti:idiotypic diseases and for
                                                                                                                                                                                                                                                                 Length 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lerner RA;
                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                          and which are may be a human
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RESULT 8
ABG30474
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                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                             systemic lupus erythemai
Crohn's disease; rheumai
non-Hodgkin's lymphoma;
                                                                            Human; light chain; CD40; autoimmune disease; multiple sclerosis; systemic lupus erythematosus; psoriasis; inflammatory bowel disease; Crohn's disease; rheumatoid arthritis; organ rejection; lymphoma; non-Hodgkin's lymphoma; monoclonal antibody; B cell; glycoprotein;
                                                                    proliferation
                                                                                                                                                     Human anti-CD40 monoclonal antibody 12D9 light chain #1.
                                                                                                                                                                                      07-OCT-2002
                                                                                                                                                                                                                   ABG30474;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'P' designates that the code named material is a synthetic the second letter designates the corresp. parent protein (sthe third letter designates the light (L) chain; the numeral designates the CDR, the idiotypic antigenic determined.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The sequence is as reported by Capra et al. Sci. USA, 71:4032 (1974); and Proc. Natl. Ac 3699 (1981)]. N.B.: the sequence of Claim ( of Y1. PSL2 means as follows:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic polypeptide(s) for inducing anti-idiotype antibodies useful for treating auto immune-, endocrine- and rheumatic-diseases and myasthenia gravis
                                                                                                                                                                                                                                              ABG30474 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of the IgM-rheumatoid factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 42; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1991-368612/50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-AUG-1985;
28-DEC-1983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-AUG-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-NOV-1991
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                                                                                                                                                                                                                                                                                                                                                                              Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                      GASSRAT
                                                                                                                                                                                                                                                                                                                                                                                                                                        14 AA;
                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                   (first entry)
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83US-0566172.
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/note=
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                                                                                                                                                                                                                                             Protein;
                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "residue belonging to adjacent region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "residue added
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                                                                                                                                                                                                                                              57
                                                                                                                                                                                                                                                                                                                                                                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                         Score 32; DB 12;
Pred. No. 1.7;
                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   belonging
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Acad.
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                                                                                                                                                                                                                                                                                                                                                                                                      Length 14;
                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              framework
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ic peptide;
(Sie 49-61);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  instead
                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                         Gaps
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WO200228904-A2 Homo sapiens

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RESULT 9
ABG30475
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Best Local Similarity
""" Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1588, 20C4, 12D9, 9F7 and 13B4. Also included are the nucleic acids encoding the antibody (or fragments). The antibodies or fragments are used for inhibiting proliferation, growth or differentiation of normal human B cells and to inhibit antibody production by B cells. They may also be useful for treating autoimmune diseases, such as systemic lupus erythematosus, psoriasis, multiple sclerosis, inflamm bowel disease (Crohn's disease), rheumatoid arthritis, and lymphoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of specifically binding to a human CD40 antigen (a glycoprotein expressed on the surface of human B cells), where the antibody or fragment is free of significant agonistic activity when it hinds to the antibody of significant agonistic activity when it hinds to the antibody of significant agonistic activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when it hinds to the activity when activity when it hinds to the activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when activity when ac
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                       02-OCT-2000; 2000US-237556P
                                                                                                                                                                                                                                                                                                                                 Crohn's disease; rheumat
non-Hodgkin's lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                            Human; light chain; CD40; autoimmune disease; multiple sclerosis; systemic lupus erythematosus; psoriasis; inflammatory bowel disea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABG30475 standard; Protein; 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of significant agonistic activity when it binds to the CD40 antigen, are the growth or differentiation is inhibited. The fragments comprise the complementarity determining region (CDR) of the light and heavy chains of the monoclonal antibodies secreted by a hybridoma consisting
                                                                            02-OCT-2001; 2001WO-US30857.
                                                                                                                                    11-APR-2002
                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                               proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG30475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Fig 5; 75pp; English
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                                                                                                                                                                                               WO200228904-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           anti-CD40 monoclonal antibody 20C4 light chain #1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GASSRAT 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
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Pred. No. 7.2;
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                                                                                                                                                                                                                                                                                                                                                                                      inflammatory bowel disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23;
                                                                                                                                                                                                                                                                                                                                                           rejection;
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RESULT 10
ABB07181
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                                                                                                                                                                                                                                                                                                                                                                   $8$$
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Best Local
                          WPI; 2002-066596/09
N-PSDB; ABA94228.
                                                                                                                                                                                                                                                                                Neuromodulatory; central nervous system; CNS; sHIgM22; LYM 22; AKJR4; ebvHigM MsI19D10; ebv HIgM CB2bG8; CB2iE12; CB2iE7; MSI19E5; virucide
                                                                                                                                                    30-MAY-2000; 2000WO-US14902
                                                                                                                                                                                                                                                                                                                                                    13-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A human anti-CD40 monoclonal antibody or fragment useful proliferation, growth or differentiation of a normal huma treating autoimmune disease such as rheumatoid arthritis
                                                                  Rodriguez M,
                                                                                                                                                                                15-NOV-2001
                                                                                                                                                                                                           WO200185797-A1.
                                                                                                                                                                                                                                      Homo gapiens.
                                                                                                                                                                                                                                                                 antiparkinsonian;
                                                                                                                                                                                                                                                                                                                       CB2iE12 kappa
                                                                                                                                                                                                                                                                                                                                                                                ABB07181;
                                                                                                                                                                                                                                                                                                                                                                                                           ABB07181 standard; Protein; 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-402142/43.
                                                                                              (MAYO-) MAYO FOUND MEDICAL EDUCATION
                                                                                                                          10-MAY-2000; 2000US-0568351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Fig 5; 75pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the antibody 20C4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lupus erythematosus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CHIR ) CHIRON CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    especially Non-Hodgkin's Lymphoma).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GASSRAT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                    Miller
                                                                                                                                                                                                                                                                                                                                                    (first entry
                                                                                                                                                                                                                                                                                                                        chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yoshihara C,
                                                                                                                                                                                                                                                                 neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      light chain.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                  Pease LR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 32; DB
Pred. No. 7.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Donnelly JJ
                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                nootropic; vulnerary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB. 23;
                                                                                                                                                                                                                                                                                CB21E7; MSI19E5; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l for inhibiting man B cells and s or systemic
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Novel neuromodulatory agent (a human

IgM monoclonal antibody)

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RESULT 11
ABG30468
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cc neurite outgrowth, regeneration, remyellation and neuroprotection in central nervous system (CNS). (1) is capable of inducing remyelination, cc promoting cellular proliferation of glial cells, and promoting Ca2+CC signaling with oligodendrocytes. An humanised antibody to (1) can be celleted from antibody sHIGM22 (LYM 22), ebvHigM MsI19D10, ebv HigM CC CB2bG8, AKUR4, CB21E12, CB21E7 or MSI19E5. (1) is useful for stimulating CC remyelination of CNS axons, stimulating proliferation of glial cells in CC CNS axons, or treating demyelinating disease of CNS in a mammal in need cof such therapy. (1) is capable of binding to structures and cells within CC CNS. (1) is preferably useful for treating a demyelinating disease of CNS of a mouse infected with Strain DA of Theiler's murine encephalomyelitis (TMEV) or for treating a human being having multiple sclerosis, or a human or domestic animal with a viral demyelinating disease, or a post-cc condition to stimulating remyelitation of CNS axons. The condition in a subject Methods where (1) is also useful for an in vitro method of CNS is also useful for preventing infection by a bacterium, virus or condition in a subject. Methods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in a subject wherhods where (1) is administered to a patient condition in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions in the cNS conditions conditions in the cNS
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                    autonmmune disease; systemic lupus erythematosus; psoriasis; multiple sclerosis; inflammatory bowel disease; Crohn's disease; rheumatoid arthritis; organ rejection, lumphon.
                                                                                                                                                                                                                                                             WO200228904-A2
                                                                                                                                                                                                                                                                                                                                                               monoclonal antibody; B cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human anti-CD40 monoclonal antibody 12D9 VK.1 region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-OCT-2002
                                                                                                               02-OCT-2000; 2000US-237556P
                                                                                                                                                             02-OCT-2001; 2001WO-US30857
                                                                                                                                                                                                                    11-APR-2002
                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; VK.1; kappa chain variable region; CD40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG30468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG30468 standard; Protein; 105 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              promoting neurite outgrowth, regeneration, remyelination and neuroprotection in central nervous system, useful to treat post-infectious encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention provides a neuromodulatory agent (I) capable of promoting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CB2iE12 kappa chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51 GASSRAT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GASSRAT 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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Pred. No. 13;
Nismatches
                                                                                                                                                                                                                                                                                                                                                                               lymphoma; non-Hodgkin's lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23; Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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of specifically binding to a human CD40 antigen (a glycoprotein expressed CC on the surface of human B cells), where the antibody or fragment is free CC of significant agonistic activity when it binds to the CD40 antigen, and the growth or differentiation is inhibited. The fragments comprise the complementarity determining region (CDR) of the light and heavy CC chains of the monoclonal antibodies secreted by a hybridoma consisting of 1588, 20C4, 12D9, 9F7 and 13E4. Also included are the nucleic acids care used for inhibiting proliferation, growth or differentiation of a normal human B cells and to inhibit antibody production by B cells. They may also be useful for treating autoimmune diseases, such as systemic lupus erythematosus, psoriasis, multiple sclerosis, inflammatory bowel disease (Crohn's disease), rhemmatoid arthritis, and lymphoma (especially Non-Hodgkin's Lymphoma). The present sequence represents to the antibody 12D9 kappa chain variable region VK.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 8; Fig 14; 75pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A human anti-CD40 monoclonal antibody or fragment useful for inhibit: proliferation, growth or differentiation of a normal human B cells at treating autolemune disease such as rheumatoid arthritis or systemic lupus erythematosus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-402142/43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 monoclonal antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                           or fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or inhibiting
B cells and
                                                                                                                     inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                           capable
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Matches
                                       Query Match
Best Local
51
               1 GASSRAT 7
                               Similarity 7; Conserv
GASSRAT 57
                               Conservative
                                       100.0%;
                               °,
                             Score 32; DB
Pred. No. 13;
0; Mismatches
                                               23;
                               0
                               Indels
                              <u>.</u>
                             Gaps
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S

Sequence

105

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RESULT 12
AAW31722
ID AAW31
AAAAXBXBX
                                   Alpha light
                                                                               AAW31722 standard; Péptide; 106
                                                   29-APR-1998
                                    chain amino acid
                                                 (first entry)
                                   sequence of
                                   the Fab
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molecule clone 1:5

Alpha light chain; Fab molecule; binding; hepatitis C virus; E2 antigen; combinatorial antibody library; vaccine; antibody recombinant human monoclonal antibody; immunological binding passive immunity. combinatorial antibody library; vaccine; human monoclonal antibody; immunological antibody; binding affinity; HCV;

Homo sapiens.

XSXEFFF

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17-APR-1997;
19-APR-1996;
                                                                   18-APR-1997;
(ALLA/) ALLANDER T E. (PERS/) PERSSON M A.
                                                                                         30-OCT-1997
                                                                                                                                              Region
                                                                                                                                                                    Region
                                                                                                                                                                                         Region
                                  97US-0844215.
96US-0635109.
                                                                   97WO-EP01977
                                                                                                                                                                              23..34
/note=
                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                        note= "CDR 2"
                                                                                                                                  "CDR 3"
                                                                                                                                                                              "CDR 1"
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PA XX PR XXX

Chu K,

Wang C,

Yoshihara C,

Donnelly JJ;

(CHIR) CHIRON

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RESULT 13
AAR38593
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of the Fab molecule, clone 1:5. This immunoglobulin molecule is capable of specifically binding with the hepatitis C virus (HCV) E2 antigen. The present sequence was obtained from a combinatorial antibody library. The alpha light chain peptide can be used to construct a recombinant human monoclonal antibody (MAb). The monoclonal antibodies exhibit immunological binding affinity for HCV E2 antigen and are cross-reactive with different HCV strains. They can be used to produce vaccine compositions which can be used to provide antibodies to HCV in a subject or to provide passive immunity or to treat HCV infected subjects. They can also be used to detect HCV and to monitor anti-HCV subjects.
                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                   Antibody; variable domain; light; L; heavy; H; consensus; affinity; antigen; immunogenicity; humanisation; framework.
                                                                                                                                                                                                                                                                                                                                                                         Human lambda light chain subgroup 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human monoclonal antibodies to hepatitis C virus E2 antigen - obtained using a combinatorial antibody library prepared using RNA from a HCV infected subject, useful for vaccine preparation
Antibodies prepn. used for treatment replacement of critical residues to retain binding affinity, etc.
                                                      WPI; 1993-213827/26
                                                                               Fishwild DM,
                                                                                                                                                             14-DEC-1992;
                                                                                                                                                                                       24-JUN-1993.
                                                                                                                                                                                                                 W09311794-A
                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                      28-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                               AAR38593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR38593 standard; peptide; 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 5; Fig 2A; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB;
                                                                                                                                   13'-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapeutic treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents the alpha light chain peptide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Allander TE,
                                                                                                         (XOMA ) XOMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GASSRAT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                          CORP:
                                                                               Kohn FR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Persson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                                                                                    91US-0808464
                                                                                                                                                             92WO-US10906.
                                                                                                                                                                                                                                        Location/Qualifiers
96
/note= "residue conserved in less than 50% of the known sequences of hL3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                               Little
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 32; DB
Pred. No. 14;
                                                                         RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
             cof auto-immune diseases reduce immunogenicity but
                                                                               Studnicka
                                                                                                                                                                                                                                                                                                                                                                         (hL3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 106;
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AAW58493
ID AAW!
XX
RESULT 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                               23-JUN-1993;
13-DEC-1991;
14-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The consensus amino acid sequences for the subgroups of light chains (hK1 - AAR38590, hK3 - NGK, hK2 - GST, hL1 - AAR38591, hL2 - AAR38592, hL3 - AAR38593, hL6 - AAR38594, hK4 - AAR38595, hL4 - AAR38596, and hL5 - AAR38597) and heavy chains (hH3 - AAR38598, hH1 - AAR38599 and hH2 - AAR38597) and heavy chains (hH3 - AAR38598, hH1 - AAR38599 and hH2 - AAR38590) of human variable domains may be used to prepare, for example, a modified mouse antibody variable domain that retains the affinity of the natural domain for antigen while exhibiting reduced immunogenicity in humans.

Unlike other methods of humanisation, which advocate the replacement of entire antibody framework regions with those of human antibodies, this method involves only the introduction of human residues into those positions not critical for antigen binding. This ensures that the binding properties of the modified antibody
                                              Depletion of CD5-positive cells in vivo - with humanised variable regions
                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                        Humanised; human; mouse; CD5; anti-CD5 antibody; immunoglobulin; depletion; cytotoxic; immunoconjugate; fusion protein; psoriasis; autoimmune disease; rheumatoid arthritis; type I diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                        WPI; 1998-376744/32.
                                                                                                                 Studnicka GM;
                                                                                                                                          (XOMA ) XOMA
                                                                                                                                                                    07-JUN-1995;
                                                                                                                                                                                                                                                            23-JUN-1998
                                                                                                                                                                                                                                                                                      US5770196-A
                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human kappa light chain subgroup 3 consensus sequence hK3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW58493;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW58493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s ensures that the not diminished.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50 GASSRAT 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GASSRAT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 93-94; 160pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                          CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                               93US-0082842.
91US-0808464.
92WO-US10906.
                                                                                                                                                                                                                                   95US-0472788.
                                                                                                                                                                    95US-0472788
                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                               /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein; 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                             "not specified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 32;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멾
                                                           using anti-CD5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                               antibodies
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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A method has been developed of

depleting English

CDS+

cells in an

animal.

Column 51-54; 77pp;

0;

Gaps

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RESULT 15
AAB62771
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 7
The present invention provides the protein and coding sequences for the variable regions of human monoclonal antibodies which are immunoreactive with human immunodeficiency virus-1 (HIV-1) envelope glycoprotein gp120. These can be used in diagnosis and therapy of HIV-1 infection.
                                                                                                                                                   Claim 1; Page 66-67; 81pp; English
                                                                                                                                                                                                                             Novel human monoclonal antibody immunoreactive with human immunodeficiency virus-1 glycoprotein gp120, useful for detecting HIV-1 in biological sample and providing passive immunotherapy to HIV-1
                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-112438/12.
N-PSDB; AAF29072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JUN-1999; 99US-0141701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus-1; HIV-1; human monoclonal antibody; envelope glycoprotein; gp120; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watkins BA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JUN-2000; 2000WO-US17327.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200100678-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human HIV-1 monoclonal antibody SEQ ID NO: 70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB62771 standard; Protein; 107 AA.
                                                                                                                                                                                                                          infected mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    method comprises administering a cytotoxic protein containing a modified immunoglobulin (Ig) variable domain, where the protein is an anti-CD5 Ig
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Search completed: June Job time: 3.15358 secs
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Sequence 12, Appl
Sequence 45, Appl
Sequence 47, Appl
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Sequence 49, Appl
Sequence 23, Appl
Sequence 23, Appl
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US-09-563-222-12
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; TYPE: PRT
; ORGANISM: Homo sapien
US-09-563-222-12
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Matches 7
                                                                           GENERAL INFORMATION:
APPLICANT: Ditzel, H.
APPLICANT: Burton, D.
APPLICANT: Schaller, M.
                                                                                                                     Sequence 45, Application U
Patent No. US20020146753A1
GENERAL INFORMATION:
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Publication No.
   TITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their partice TITLE OF INVENTION: autoimmune disease FILE REFERENCE: 1361.005US1
CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Hiatt, Andrew
APPLICANT: Hein, Mich B.
TITLE OF INVENTION: IMMUNOGLOBULIN BINDING
TITLE OF INVENTION: EUKARYOTIC CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: 310098.406
CURRENT APPLICATION NUMBER: US/09/563,
CURRENT FILING DATE: 2000-05-02
NUMBER OF SEQ ID NOS: 197
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US-09-859-053-38

US-09-880-748-1264

US-09-880-748-1235

US-09-880-748-1219

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US-09-877-797A-30

US-09-977-797A-30
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US-09-453-234-74
US-09-453-234-78
US-09-453-234-38
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US-09-453-234-72
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US-10-153-382-7
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Sequence 42, Appl
Sequence 50, Appl
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                                                                                                                                                                            TITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their partic:
TITLE OF INVENTION: autoimmune disease
FILE REFERENCE: 1361.005US1
CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
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                                                                                                                                                               NUMBER OF SEQ ID NOS:
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SOFTWARE: FastSEQ for
                                                                                            ORGANISM: Homo sapiens
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ITLE OF INVENTION: autoimmune disease
ILE REFERENCE: 1361.005US1
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1 GASSRAT 7
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                                       Similarity
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US2002014675331
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FastSEQ for Windows Version 4.0
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RESULT 7
US-10-025-687-23
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US-10-125-687-23
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; ORGANISM: Homo sapiens
US-09-828-708-49
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US-09-828-708-49
Sequence 23, Application US/10025687
PATENT NO. US20020142255A1
GENERAL INFORMATION:
APPLICANT: Luo, Peter
TITLE OF INVENTION: STRUCTURE-BASED CONSTRUCTION OF HUMAN ANTIBODY LIBRARY
FILE REFERENCE: 26050-705
CURRENT APPLICATION NUMBER: US/10/025,687
NUMBER OF SEQ ID NOS: 28
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Best Local (
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SEQ ID NO 23
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Best Local
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CURRENT FILING DATE: 2002-04-17
NUMBER OF SEQ ID NOS: 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Luo, Peter
TITLE OF INVENTION: S'
FILE REFERENCE: 26050
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TYPE: PRT
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CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 123
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                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
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; ORGANISM: Homo sapiens US-10-025-687-23

SEQ ID NO. 23

LENGTH: 74 TYPE: PRT

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SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 22
LENGTH: 96
TYPE: PRT
ORGANISM: Homo sapiens
US-10-153-382-22
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US-10-194-975-82
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Best Local
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Best Local :
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SEQ ID NO 82
LENGTH: 96
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Publication No.
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Best Local S
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CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: US 60/305,111
PRIOR FILING DATE: 2001-07-12
NUMBER OF SEQ ID NOS: 122
                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/293042
PRIOR FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 39
                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
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                                                                                                                                                                                                                                                                                                 TLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES LE REFERENCE: PC23019A
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51 GASSRAT 57
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                           GASSRAT 7
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to. US20030039649A1
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100.0%; Pred. No. 5.
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100.0%; Pred. No.
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US-09-828-708-3
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GENERAL INFORMATION:
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Best Local :
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Best Local
APPLICAM: Burton, D.
APPLICAMT: Burton, D.
APPLICAMT: Schaller, M.
TITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their partic
TITLE OF INVENTION: Autoantibodies to glucose-6-phosphate isomerase and their partic
FILE REFERENCE: 1361.005US1
CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT APPLICATION DATE: 2001-09-24
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CURRENT APPLICATION NUMBER: US/09/828,708
CURRENT FILING DATE: 2001-09-24
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TYPE: PRT
ORGANISM: Homo sapiens
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/ ORGANISM: Homo sapiens
US-09-828-708-5
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Best Local :
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SOFTWARE: FastSEQ for Windows Version 4.0
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ORGANISM: Homo sapiens
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TTLE OF INVENTION: autoimmune disease
ILE REFERENCE: 1361.005US1
                                       SOPTWARE: Patentin Rel
CUPRENT APPLICATION DATA:
                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ent No. US20020146753A1
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                                                                                                                                                                             CITY: MENLO PARK
CLASSIFICATION:
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INVENTION: 'HUMAN MONOCLONAL ANTIBODIES SPECIFIC FOR
INVENTION: HEPATITIS C VIRUS (HCV) E2 ANTIGEN
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                                                                                                                                                                                                                                                                                                                                                Application US/08844215
                                                                                                                                                                                                                                                                                                                                                                                                                          GASSRAT 50
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90 MIDDLEFIELD ROAD, SUITE 200
                                                                                                                                                 USA
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            17-APR-1997
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                                                    Release #1.0, Version #1.30
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Pred. No. 5.9;
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Search completed: June 3, 2003, 08:52:54 Job time: 1.66041 secs

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                                                                                                                         ; OTHER INFORMATION: anti-Rh(D) antibody clone SH52
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                                                                                                                                                                                                                        SEQ ID NO 178
                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/240,274
PRIOR FILING DATE: EARLIER FILING DATE: 1999-01-29
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/028,550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-848-798-178
                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 22:
SOFTWARE: PatentIn Ver. 2
                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/848,798
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                                                                                                                                                                                                                                                                                                                                                                                                                                                blication No.
                                                                                                                                                            FEATURE:
                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                          ENGTH: 108
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ITLE OF INVENTION: Rh(
ITLE OF INVENTION: SC
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LENGTH: 107 amino acids
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                                                              Conservative
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Rh(D) BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL

SORTING METHOD FOR PRODUCTION THEREOF
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                                                                         100.0%; Score 32; DB 9; 100.0%; Pred. No. 6.1;
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/pCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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Copyright (c) 1993 - 2003 Compugen Ltd.
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                           US-08-162-102C-39
US-08-107-669D-14
US-08-472-788A-14
US-08-652-558-49
US-08-652-558-86
US-08-477-728-86
US-08-477-728-86
US-08-477-728-86
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US-08-477-7484B-150
US-08-488-113B-150
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US-08-488-13B-150
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00	Sequence 99, Appl	Sequence 88, Appl	Sequence 99, Appl	Sequence 88, Appl	Sequence 99, Appl		Sequence 87, Appl	Sequence 87, Appl	Φ		Sequence 92, Appl	Sequence 92, Appl	Sequence 92, Appl	æ	Sequence 38, Appl	Sequence 4, Appli	Sequence 311, App

ALIGNMENTS

Сарв	0,	Query Match 100.0%; Score 32; DB 1; Length 56; Best Local Similarity 100.0%; Pred. No. 1.4; Matches 7; Conservative 0; Mismatches 0; Indels
		; SIRVEDENESS: DOC RELEVANT; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-162-102C-39
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		; TELEPHONB: (619) 678-5070 ; TELEPAX: (619) 678-5099
		; REFERENCE/DOCKET NUMBER: 07300/007001 ; TELECOMMUNICATION INFORMATION:
		; NAME: Halle, Ph.D., Lisa A. REGISTRATION NUMBER: 38,347
		~ :
		Ω 4
		; APPLICATION NUMBER: US/08/162,102C
		; SOFTWARE: PatentIn Release #1.0, Version #1.25
		; OPERATING SYSTEM: PC-DOS/MS-DOS
		TYPE: Flo
		COMPUTER READABLE FORM:
		RY:
		; STREET: 4225 Executive Square, Suite 1400
		ADDRESSEE: Fish & Richardson P.C.
		; NUMBER OF SEQUENCES: 49
	Ö	INVENTION:
	U D	; APPLICANT: Crowe, Jr., James E.
		: Murphy, E
		; APPLICANT: Barbas, III, Carlos F.
		, Denn
		; Sequence 39, Application US/08162102C
		US-08-162-102C-39

1 GASSRAT 7

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GASSRAT 56

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NAME: Michele A. Cimbala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 14-DEC-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                          ORRESPONDENCE ADDRESS
                                                                                                          UMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                           TLE OF INVENTION: M
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ZIP: r20005-3934
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DDRESSEE:
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                                                                             DRESSEE:
                                                                                                                                                                                                                                                                   50 GASSRAT 56
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                                            Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
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                                                                                                                                                                                    Application US/08472788A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08107669D
                                                           1100 New York Ave.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3: Sterne, Kessler, Goldstein and Fox P.L.L.C. 1100 New York Ave., N.W., Suite 600
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ilarity 100.0%;
Conservative 0
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13-AUG-1993
                                                                                                                    Modified Antibody Variable Domains
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                                                                                                                                          Gary M.
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Pred. No. 2.8;
                                                           Goldstein and Fox P.L.L.C. N.W., Suite 600
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US-08-477-531B-14
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                              equence 14, Application US/08477531B atent No. 5821123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS
                                            FILING DATE: 07-JUN-1995
CLASSIFICATION: 436
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/107,669
FILING DATE: 13-AUG-1993
                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                            FILING DATE: 13-AUG-1993 PRIOR APPLICATION DATA:
                                                                                                                                     SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: 15
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APPLICATION NUMBER: 13-DEC-
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                    TUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
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                                                                                                    APPLICATION NUMBER: US/00 PILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                  COUNTRY:
                APPLICATION NUMBER:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                  1100 New York Ave.,
                                                                                                                                                                                                                                                      United States of America
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202/371-2540
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14-DEC-1992
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Modified Antibody Variable Domains (as amended)
                                                                                                                           US/08/477,5318
              PCT/US92/10906
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Pred. No. 2
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                                                                                                                                                         Version #1.25
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Query Match
Best Local Similarity
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PILING DATE: JUNE 6, 1996
PRIOR APPLICATION DATA:
APPLICATION UNWBER: PCT/IB94/003
PILING DATE: NOVEMBER 21, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 107 amino acids
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MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage

MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage

MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage

MCDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage
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LENGTH: 107 amino acid
                                                                                    MOLECULE TYPE: protein
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y Match 100.0%;
Local Similarity 100.0%;
les 7; Conservative 0
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                                                                                                                                                                                                                                                                          NAME: YANKWICH, LEON R
REGISTRATION NUMBER: 30
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                                                                                                         TOPOLOGY:
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TLE OF INVENTION: HUMANIZED ANTIBODIES AND USES
TLE OF INVENTION: THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Michele A. Cimbala REGISTRATION NUMBER: 33,
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Conservative 0
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BER: 95,497-L
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                     Score 32; DB Pred. No. 2.8;
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Pred. No.
                                    DB '2;
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APPLICANT: Studni
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                                                                                                                                   tent No.
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TELEPHONE: 202/371-2600
TELEFAX: 202/371-2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/10906
FILING DATE: 14-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/808,464
FILING DATE: 13-DEC-1991
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
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NUMBER OF SEQUENCES: 89
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 33,851
REFERENCE/DOCKET NUMBER: 0610.1000002
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FILING DATE: 23-JUN-1993
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                                   QUEEN, Cary L.
CO, Man Sung
SCHNEIDER, William P.
LANDOLFI, Nicholas F.
                                                                                                                                                 Application US/07634278
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1100 New York Ave.,
                                                                                                                                                                                                                                                                                                        Conservative
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100.0%; Pred. No. 2
IMPROVED HUMANIZED IMMUNOGLOBLINS
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                                                                                                                                                                                                                                                                                                                                        Length 107;
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NUMBER OF SEQUENCES:

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Sequence 86,
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Best Local :
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INFORMATION FOR SEQ ID NO: 86:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                tent No.
               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 11823-002600
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US/07/634,278
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                           UMBER OF SEQUENCES:
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                                                                                                          COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/290,975 FILING DATE: 28-DEC-1988
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                                                                                                                                                                           DDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 07/590,274 FILING DATE: 28-SEP-1990 IOR APPLICATION DATA:
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                                                                                                                                                                                                                             LICANT: SELICK, Harold LE OF INVENTION: IMPROV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Palo Alto
                                                                                                                                                                                                                                                                                             INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  51 GASSRAT 57
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                                                                                          94111
                                                                                                                      Palo Alto California
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Similarity 100.0%;
7; Conservative 0;
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                                                                                                                                                                                             ENCE ADDRESS:
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                                                                                                                                                                                                                                                           SCHNEIDER, William P.
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PatentIn Release #1.0, Version #1.25
                                                                                                                                                    Townsend and Townsend and Crew LLP o Embarcadero Center, 8th Floor
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Pred. No.
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Best Local
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            PRIOR APPLICATION DATA:
                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                               SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US 07/634,278
PRI-THIG DATE: 19-DEC-1990
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                                                                                                                                                                                                                                                TUMBER OF SEQUENCES:
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                          APPLICATION NUMBER: FILING DATE: 07-JUN CLASSIFICATION: 530
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                                                                                             OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                               COUNTRY:
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                                                                                                                                                                                                                     ADDRESSEE:
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IOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                       INFORMATION:
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                                                                                                                                                   9430
                                                                                                                                                                                          Palo Alto
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                                                                                                                                                                                                                                                          INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acid
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SCHNEIDER, William
LANDOLFI, Nicholas
                                                                                                                                                                                                                                                                        SELICK, Harold
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linear
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US 07/634,278
                                                                                                                                                                                                                                             113
                                                    US/08/474,040
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                                                                               Version #1.25
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JS-08-487-200-86
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                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/634,278
FILING DATE: 19-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/590,274
FILING DATE: 28-SEP-1990
PRIOR APPLICATION DATA:
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SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
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FILING DATE: 28-DEC-1988
TORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
                                                 APPLICATION NUMBER:
                                                                                                                                                                                                     APPLICATION NUMBER: US/
FILING DATE: 7-JUN-1995
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FILING DATE: 28-SEP-1990
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COELINGH,
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WUNGIDER, William P.
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15) 326-2422
                                 MBER: US 07/310,252
13-FEB-1989
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US 07/290,975
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US-08-487-200-86
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO:
                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                            PRIOR APPLICATION DATA:
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                                                              FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
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smith, William M
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                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/01
FILING DATE: 07-JUN-1995
                                                                                                                                              APPLICATION NUMBER: US 07/901,707
                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                              APPLICATION NUMBER:
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                                              McNicholas, Janet M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                               19-JUN-1992
                                                                                                                                                                                                                                                                                18-APR-1995
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., Stephen F.
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Madison Street, 34th floor
FORMATION
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100.0%; Pred. No. 2
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                                                                                                                                                                                                                                                                                             US 08/425,336
                                                                                              US 07/787,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                             US/08/488,113B
                           32,918
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             11022US07/200-70.P3.C2A
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US-08-488-113B-150
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENERAL INFORMATION:
                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/425,336 FILING DATE: 18-APR-1995 PRIOR APPLICATION DATA:
             TELECOMMUNICATION INFORMATION: TELEPHONE: 312/707-8889
                                                                                                                                                                            APPLICATION NUMBER: 1
                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
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                                     NAME: McNicholas, Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 11022US07/200-70.P3.C2A
                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 09-DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity hes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/477,484B
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o. 5756699
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DATE: 12-MAY-1993
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500 West Madison Street, 34th floor
312/707-9155
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                                                                                                                                                            UMBER: US 07/901,707
19-JUN-1992
                                                                                                                                                                                                           09-DEC-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
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Best Local Similarity
Thes 7; Conserve
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TELEX: 650 388-1248
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                               CLASSIFICATION: 530
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: PCT/US94/05348
                                                                                                         FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                            PILING DATA:
PRIOR APPLICATION DATA:
US 07/787,567
                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                     TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
FILING DATE: 12-MAY-
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: Illi
                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 09-DEC
                          FELEFAX:
                                                                  REGISTRATION NUMBER: 32
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                                       ELEPHONE:
                                                                                                                                                                              APPLICATION NUMBER:
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                                                                                            McNicholas, Janet M.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                        312/707-8889
                                                                                                                                                                 UMBER: US 07/901,707
19-JUN-1992
                                                                                                                                                                                                                                                                                                                                                  13-MAY-1996
                                                                                                                                                                                                          MBER: US 07/988,430
09-DEC-1992
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                                                                            32,918
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SEQUENCE CHARACTERISTICS
LENGTH: 108 amino acid

150:

STRANDEDNESS

double

amino acid

US-08-646-360-150

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US-08-232-081B-42
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                                                                                                                 08-839-765-150
                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (703) 205-8050 INFORMATION FOR SEQ ID NO:
                                                                                        quence 150, Application US/08839765
tent No. 6146631
                                                                                      ent No.
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: SVENSSON, LECNARD R
REGISTRATION NUMBER: 30,330
REFERENCE/DOCKET NUMBER: 20-3484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 22040-0747
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                   WERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                   Local Similarity es 7; Conserv
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                                                                                                                                                                                     51 GASSRAT 57
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NOGUCHI, HIROSHI
VENTION: HUMANIZED B-B10
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                                                      Better, Marc D.
                                                                                                                                                                                                                                                                                                                                 peptide
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                                     , Stephen F.
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Immunotoxins Comprising Ribosome-Inactivating
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Pred. No.
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Search completed: June 3, 2003, 08:24:19 Job time : 1.06314 Becs

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                                                             Matches
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NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 07/988,430
                                                                                                                                          MOLECULE TYPE:
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PRIOR APPLICATION NUMBER: US 07/901,707
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
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                                                            Local Similarity nes 7; Conserv
                                                                                                                                                           TOPOLOGY: 11
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TELEFAX: 312/707-9155
                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07 FILING DATE: 09-DEC-1992
                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/425,336 FILING DATE: 18-APR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                              1 GASSRAT 7
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PATION NUMBER: 32,918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ICATION DATA:
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500 West Madison Street, 34th floor
                                                                                                                                                                                                      108 amino acids
                                                             Conservative
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                                                                                                                                          protein
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04-NOV-1991
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                                                                         100.0%;
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                                                                            Score 32;
Pred. No.
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Result
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Maximum
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Perfect score:
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   protein search, using sw model
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Match
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92
1 FISYDGSNKHYADSV
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                          Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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6	69	69	69	70	72	73	73	73	73	73	73	75	76	76	80
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138	122	119	118	121	118	133	128	122	119	114	108	137	133	76	139
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heavy chain V r		g heavy chain V-I			heavy chain	heavy chain	heavy	Ċ	Ig heavy chain - h		Ŀ		heavy	g heavy chain V r	g heavy chain V r

ALIGNMENTS

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Ig heavy chain V region (COS 3) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 07-Jun-1994 #sequence_revision 17-Nov-1995 #text_change 23-Jul-1999
C;Accession: S29543
R;Tomlinson, M.; Walter, G.; Cook, G.P.; Winter, G.
submitted to the EMBL Data Library, October 1992
A;Reference number: S29543
A;Accession: S29543
A;Accession: S29543
A;Residues: 1-98 <TOM>
A;Residues: 1-98 <TOM>
A;Residues: 1-98 <TOM>
A;Coss-references: EMBL:Z17389; NID:g32835; PIDN:CAA78994.1; PID:g32836
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
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A;Title: Human anti-self antibodies with high specificity from phage display libraries A;Reference number: S36256; MUID:93178448; PMID:7679990
A;Accession: S36259
A;Accession: S36259
A;Status: preliminary; nucleic acid sequence not shown
                                                                                                                                                                         A;Cross-references: EMBL:Z18850; NID:g33123; PIDN:CAA79302.1; PID:g939902 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM>
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                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-117 <GRI>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain V region (clone alpha-TNF-A1) - human (fragment)
C;Species: Homo sapiens (man)
C;Sate: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Jul-1999
                                                                                              Matches
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Best Local
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                            1 FISYDGSNKHYADSVKG 17
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  FIRYDGSNKYYADSVKG
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ilarity 88.2%;
Conservative
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                                                                                  Score 81; DB 2;
Pred. No. 8.4e-06;
1; Mismatches 1
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Pred. No. 7e-06;
1; Mismatches
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C;Species: Homo sapiens (man)
C;Date: 24-Uul-1998 #sequence_revision 24-Jul-1998 #text_change 21-Jan-2000
C;Accession: S70442
R;Cuisinier, A.M.; Fumoux, F.; Fougereau, M.; Tonnelle, C.
Mol. Immunol. 29, 1363-1373, 1992
A;Title: IgM kappa/lambda EBV human B cell clone: an early step of differentiation A;Reference number: S70442; MUID:93024508; PMID:1383695
A;Accession: S70442
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                              A; Molecule type: mRNA
A; Residues: 1-140 < CU
                                                                   A; Status: not compared with conceptual translation
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: hererotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               submitted to the EMBL Data Library, June
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ig heavy chain V region - human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cross-references: EMBL:214170; NID:g31001; PIDN:CAA78539:1; PID:g31002; Superfamily: immunoglobulin V region; immunoglobulin homology; Keywords: heterotetramer; immunoglobulin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Residues: 1-135 <CUI>
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Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
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Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
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Best Local :
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                              1-140 <CUI>
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immunoglobulin V region, immunoglobulin homology
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Pred. No. 9.8e-06;
1; Mismatches 1
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Pred. No. 9.7e-06;
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C; Species: Homo sapiens (man)
C; Date: 07-Jun-1990 #sequence
C; Accession: PL0116; S26892
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                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-97 < HAW>
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C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change
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PL0120
Ig heavy chain V-III region (AW-Vx) - human (fragment)
                                                                                                                                                                                                                                                                                                              A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                  A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                R;Hawkins, R.E.; Zhu, D.; Ovecka, M.; Winter, G.; Hamblin, submitted to the EMBL Data Library, March 1994
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A; Residues: 1-94 <BIR>
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C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 16-Aug-1996
C;Accession: PL0120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain V region -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Bird, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;34-117/Domain: immunoglobulin homology <IMM>
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Best Local :
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Best Local
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                                                                                                        2 ISYDGSNKHYADSVKG
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93.8%;
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93.8%;
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Pred. No. 1e-(
1; Mismatches
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Pred. No. 1e-05;
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1e-05;
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RESULT 10
PH1644
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[/Species: Homo sapiens (man)
[/Date: 07-Jan-1994 #sequence_revision 17-Nov-1995 #text_change 23-Jul-1999
[/Accession: S29546; S26888
[/Tomlinson, M.; Walter, G.; Cook, G.P.; Winter, G.
[/Species: Cook, G.P.; Winter, G.
[/Species: Cook, G.P.; Winter, G.
[/Species: Cook, G.P.; Winter, G.
[/Species: Cook, G.P.; Winter, G.
[/Species: Cook, G.P.; Winter, G.
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[/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.P.] [/Species: Cook, G.
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A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups of A;Reference number: $26885; MUID:93021117; PMID:1404388
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J. Exp. Med. 168, 229-245, 1988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;Cross-references: EMBL:217394; NID:g32843; PIDN:CAA78997.1; PID:g32844; Note: designated COS-8; Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G. Mol. Biol. 227, 776-798, 1992
Mol. Biol. 227, 776-798 human germline V(H) sequences reveals about fifty groups of ;Reference number: S26885; MUID:93021117; PMID:1404388; Accession: S26888
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                                                                                                                                                                                                                                                                                                                                                                             Superfamily: immunoglobulin V region; immunoglobulin homology Keywords: heterotetramer; immunoglobulin ;15-98/Domain: immunoglobulin homology <IMM>
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Residues: 1-98 <TO2>
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Best Local :
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Residues: 1-98 <BIR>
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93.8%;
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Pred. No. 1e-05;
1; Mismatches
                                                                                                                                                                                                                                                                                              Score 80; DB 2;
Pred. No. le-05;
                                                                                                                                                                                                                                                                         Mismatches
   human
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F;7-90/Domain:
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A; Residues: 1-111 <HIL>
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R;Hillson, J.L.; Ka;
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A;Molecule type: mRNA
A;Residues: 1-109 <HIL>
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C;Superfamily: immunoglobulin V région; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;7-90/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                               A;Title: The structural basis of germline-encoded VH3 immunoglobulin binding A;Reference number: PH1642; MUID:93301610; PMID:8315388
                                                                                                                                                                                                                                                                                                                        R;Hillson, J.L.; Karr, N.S.; Oppliger, I.R.; Mannik, M.; Sasso, J. Exp. Med. 178, 331-336, 1993
A;Title: The structural basis of germline-encoded VH3 immunoglo
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J. Exp. Med. 178, 331-336, 1993
A;Title: The structural basis of germline-encoded VH3 immunoglobulin binding to staphy.
A;Reference number: PH1642; MUID:93301610; PMID:8315388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ig heavy chain V region (clone 6H12) - human (fragment)
c/species: Homo sapiens (man)
C/spacies: Homo sapiens (man)
C/bate: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change
C/Accession: PH1646
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J. Exp. Med. 178, 331-336, 1993
A;Title: The structural basis of germline-encoded VH3 immunoglobulin binding
A;Reference number: PH1642; MUID:93301610; PMID:8315388
                                                                                                              Superfamily: immunoglobulin V region; immunoglobulin homology;Keywords: heterotetramer; immunoglobulin;7-90/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                         g heavy chain V region (clone 6H7) - human (fragment)
;Species: Homo sapiens (man)
;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 16-Aug-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Superfamily: immunoglobulin V region; immunoglobulin homology; Keywords: heterotetramer; immunoglobulin
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Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 16-Aug-1996
Score 80; DB
Pred. No. 1.2e
1; Mismatches
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Pred. No. 1.1e-05
1; Mismatches
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Ig heavy chain V region (clone 6C8) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 16-Aug-1996
C;Accession: PH1645
N S Opplicer, I.R.; Mannik, M.; Sasso, E.H.
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                                                                                                                                                                                                                              Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 20-Jun-2000
                                                                                                                                                                                                                                                                                                                                    RESULT 15
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                                                 A,Accession: S46390
A,Status: preliminary
A,Molecule type: DNA
A,Residues: 1-114 <FIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ig heavy chain -
                                                                                                                           Pigini, M.; Marks, J.D.; Winter, G.; Griffiths, A.D. Mol. Biol. 239, 68-78, 1994
JTicle: In virro assembly of repertoires of antibody chains on the Reference number: S46390; MUID:94254092; PMID:8196048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Marks, J.D.; Ouwehand, W.H.; Bye, J.M.; Finnern, R.; Gorick, B.D.; Voak, D.; Thorpe, ubmitted to the EMBL Data Library, June 1993

Description: Human antibody fragments specific for human blood group antigens from a
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Cross-references: EMBL:Z31686; NID:g509782; PIDN:CAA83491.1; PID:g1335143 Superfamily: immunoglobulin V region; immunoglobulin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
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Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
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| 1 ISYDGSNKYYADSVKG 58
                                                 1-114 <FIG>
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Pred. No. 1.2e-05;
1; Mismatches (
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F;15-98/Domain: immunoglobulin homology <IMM>

Query Match 87.0%; Score 80; DB 2; Length 114; Best Local Similarity 93.8%; Pred. No. 1.2e-05; Matches 15; Conservative 1; Mismatches 0; Indels 0; Ov 2 ISYDGSNKHYADSYKG 17

Gaps

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Oy 2 ISYDGSNKHYADSVKG 17
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Db 51 ISYDGSNKYYADSVKG 66

Search completed: June 3, 2003, 08:22:41 Job time: 4.07509 secs

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Result
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Query
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Copyright (c) 1993 - 2003 Compugen Ltd.
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MEDILINE=81289131, PubMed=6884994;
MEDILINE=81289131, PubMed=6884994;
MEDILINE=81289131, PubMed=6884994;
MEDILINE=12289131, Palm W., Hilschmann N.;
MEDILINE=12289131, PubMed=6884994;
MEDILINE=12289131, PubMed=688494, 
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"Crystallographic refinement and atomic models of the intact
immunoglobulin molecule Kol and its antigen-binding fragment
and 1.0-A resolution.";
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PIR; A02055; G1HUKL.
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MEDLINE=81072295; PubMed=7441755;
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-i- MISCELLANEOUS: THIS MU CHAIN WAS
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Lehman D.W., Putnam F.W.;
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Putnam F.W., Liu Y.-S.V., Low T.L.K.;
Primary structure of a human 1gA1 immunoglobulin
1gA1 protease, digestion, Fab and Fc fragments, a
amino acid sequence of the alpha 1 heavy chain.";
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PYRROLIDONE CARBOXYLIC ACID.
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Pred. No. 0.00
3; Mismatches
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HV3M_HUMAN
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00047; ig; 1.

SMART; SM00406; IGv; 1.

Immunoglobulin V region.

MOD_RES

NON_TER

122

SEQUENCE

122

AA; 13166
                                                        GLOBULIN ACTIVITY.
PIR; A02057; M3HUPM.
HSSP; P01772; 2FB4.
                                                                                                                                                     MEDIINE-75046755; PubMed-4139708;
Capra J.D., Kehoe J.M.;
"Structure of antibodies with shared idiotypy: the complete "Structure of antibodies with shared idiotypy: the complete of the heavy chain variable regions of two immunoglobulin M
                                                                                                                        Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; A02052; M3HUGA.
HSSP; P01772; 2FB4.
IntexPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                            HV3M HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                      InterPro; IPR003006; Ig_MHC
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                        VCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUL-1986
21-JUL-1986
15-JUL-1999
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                                                                                                                                                                                                                                                                                                           lomo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IEDLINE=74175307; PubMed=4208843;
Thorent G., Lehman D., Putnam F.W.;
The switch point in mu heavy chains of human IgM immunoglobulins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15 heavy chain V-III region GA.
15 jomo sapiens (Human)
                                                                                                                                                                                                                           EQUENCE
                                                                                                                                                                                                                                                                                                                       1-JUL-1986 (Rel. 01, Created)
1-JUL-1986 (Rel. 01, Last sequence update)
5-JUL-1999 (Rel. 38, Last annotation updat
3 heavy chain V-III region POM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       iochemistry 13:2482-2498(1974).
!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A WALDENSTROM'S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EQUENCE
                                                                                                           MISCELLANEOUS: THIS CHAIN WAS ISOLATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MACROGLOBULIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISYDGSNKHYADSVKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ISYBGBBZYYAASVKG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISYDGSNKHYADSVKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122
; 13166 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 59; DB 1; Pred. No. 0.0058; Pred. No. 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PYRROLIDONE CARBOXYLIC ACID
                                                                                                         71:4032-4036(1974).
WAS ISOLATED FROM IGM WITH ANTI-GAMMA
                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74E5B6959E84100A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                          119
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                                                                                                                                                                                                                                                                                                                                        update)
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RESULT 7
HV3N_HUM/
        RAPROCOCUE POPA I
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HV3B_HUMAN
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Best Local S
Matches: 9
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Best Local :
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SMART; SM00406; IGv; 1.

Immunoglobulin V region.

NON TER

119

SEQUENCE 119 AA; 12858
                                                                                                                                           HV3B_HUMAN
P01763;
SEQUENCE.
MEDLINE=83273707; PubMed=6410398;
Goni F., Frangione B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                Capra J.D., Kehoe J.M.;
"Structure of antibodies with shared idiotypy: the complete sequence of the heavy chain variable regions of two immunoglobulin M
                                                  NCBI_TaxID=9606;
                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia, Butheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                       21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                     GLOBULIN ACTIVITY.
PIR; A02058; M3HULY.
HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                         anti-gamma globulins.";
Proc. Natl. Acad. Sci. U.S.A.
-!- MISCELLANEOUS: THIS CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1996 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
19 heavy chain V-III region LAY.
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunoglobulin V region.
VARIANT 54 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=75046755; PubMed=4139708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HV3N_HUMAN
                                                                                    ig heavy chain V-III
                                                                                                                                                                                                                                                                                                                                                             InterPro, IPR003596; Ig_wHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                               54 NGNDKHYADSVNG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54 NGNDKHYADSVNG
                                                                                                                                                                                                                                5 DGSNKHYADSVKG 17
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                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                         Similarity
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119
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                                                                                                                                                        STANDARD;
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                                                                                                                                                                                                                                                                                                         12858 MW;
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                                                                                              region
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                                                                                                                                                                                                                                                                       Score 53;
Pred. No.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N -> D (PROBABLY DUB
DURING ISOLATION).
/FTId=VAR_003966.
                                                                                                                                                                                                                                                                                                                                                                                                                        71:4032-4036(1974).
WAS ISOLATED FROM IGM WITH ANTI-GAMMA
                                                                                                                                                        PRT;
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                                                                                                                                                                                                                                                                                                         D6338098794DCF5E CRC64;
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. 0.057;
                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                  Length 119;
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RESULT 9
HV05 CARA
ID HV05 CARA
ID OT 01-W
DT 
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Best Local S
Matches 11
                                                                                       Matches
                                                                                                        Query Match
Best Local
                                                                                                                                                                                            NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A
PIR; B28966; B28966.
HSSP; P01772; 2784.
InterPro; IPRO03006; Ig_MC.
InterPro; IPRO03596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

MEDLINE=88144476; PubMed=3125551;

MIHON M.R., Middleton D., Warr G.W.;

"Immunoglobulin heavy chain variable region gene evolution: structure and family relationships of two genes and a pseudogene in a teleost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carassius auratus (Goldfish).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniform
Cyprinidae; Carassius.
NCBI_TaxID=7957;
                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                          DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
Pfam; PF000407; 1g; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Amino acid sequence of the Fv region of a human monoclonal (protein WEA) with antibody activity against 3,4-pyruvylategalactose in Klebsiella polysaccharides K30 and K33.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; A02046; M3HUWE.
HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -1- MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM A MONOCLONAL ANTIBODY AGAINST 3,4-FYRUVYLATED GALACTOSE AND ISOLATED FROM A PATIENT WITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WALDENSTROM'S MACROGLOBULINEMIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARAU
  69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50
                                         N
                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                  ISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FIGGSGSTIYYADSVKG
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                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Rel. 16, Created)
(Rel. 16, Last sequence update)
(Rel. 38, Last annotation update)
in V region 5A precursor.
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                                                                                                                                                                                                                                                                                                                                                                        V region; Signal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sci. U.S.A.
                                                                                                                                                                                                           54
68
84
116
                                                                                                  56.5%;
56.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12256 MW;
                                                                                                                                                                   12808 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polysaccharides K30 and K33,";
J.S.A. 80:4837-4841(1001)
84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                                                                              Score 52; DB
Pred. No. 0.08
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 52;
Pred. No.
                                                                                                                                                                                                         FRAMEWORK-2.
COMPLEMENTARITY-DETERMINING-2.
FRAMEWORK-3.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                   IG HEAVY CHAIN V REGION 5A. FRAMEWORK-1.
COMPLEMENTARITY-DETERMINING-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85:1566-1570(1988)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                 9C2279E2DF199B12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D88294FB418A07B7 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116 AA
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                                                                                                  DB 1;
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                                                                                                                   Length 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 114
                                                                                                                                                               CRC64;
                                                                              Indels
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Best Local
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HV16 MOUSE
P01783;
21-JUL-1986
21-JUL-1999
                                      SEQUENCE OF 17-136.

MEDLINE=77100388; PubMed=401950;

Adetugbo K., Milstein C., Secher D.

"Molecular analysis of spontaneous
Nature 265:299-304(1977).
         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                       "Heavy chain variable region contribution antibodies: somatic mutation evident in a
                                                                                                                                              Baltimore D.;
                                                                                                                                                         Bothwell A.L.M.,
                                                                                                                                                                   MEDLINE=81234548;
                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                              21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Ig heavy chain V region MOPC 21 precursor (Fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-JUL-1986
21-JUL-1986
15-JUL-1999
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P01771;
                                                                                                             Cell 24:625-637(1981).
                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                       Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR003596; Ig-
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cryoimmunoglobulin IgG Hil.";
Biochemistry 18:553-560(1979).
-!- MISCELLANEOUS: THIS CHAIN WAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Amino acid sequence of the VH region
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBT TayTD=9606
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                                                                                                                                                                                                                                                                                                                                                                 51
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121 AA;
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(Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
ain V-III region HIL.
Swiss Institute
Bioinformatics 1
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                                                                                                                                                     pubMed=6788376;
Paskind M., Reth M.,
                                                                                                                                                                                                                                                                                 01, Created)
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Rodentia;
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Pred. No. 0.085;
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Sciurognathi; Muridae;
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on of human
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; Murinae; Mus.
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          a collaboration
MBL outstation -
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
MOD RES
NON TER 122 122
SEQUENCE 122 AA; 13472
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P01762;
21-JUL-1986
21-JUL-1986
15-JUL-1999
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CONFLICT
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NON TER
SEQUENCE
                                                                                                                                                                                                                           SEQUENCE (MYELOMA PROTEIN TRO).
MEDLINE=76023781; PubMed=809331;
Kratzin H., Altevogt P., Ruban E.,
                                                                                                                                                                         "The primary structure of a monoclonal IgA-immunoglobulin (IgA Tro.), II. The amino acid sequence of the H-chain, alpha-type, subgroup III; structure of the complete IgA-molecule.", Hoppe-Seyler's Z. Physiol. Chem. 356:1337-1342(1975).
                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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HSSP; P01772; 2FB4.
                                                                                                                                                                Hoppe-Seyler's Z. Physiol.
                                                                                                                                                                                                                   Hilschmann N.
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InterPro; IPR003596; Ig_v.
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SMART; SM00406; IGv;
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HSSP; P01772; 2FB4.
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nterPro; IPR003596; Ig_v.
                   l Similarity
10; Conser
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FISYDGSNKHYADSVKG
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hain V-III region 7
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Pred. No. 0.14;
2; Mismatches
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DN -> ND (IN REF. 2).
W -> H (IN REF. 2).
Y -> W (IN REF. 2).
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Pred. No. 0.18;
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JH4 SEGMENT.
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OF THE C REGION IS A
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Best Local S
Matches 9
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21-JUL-1986
15-JUL-1999
                               "Complete amino acid sequence of the alpha 2 hear 19A2 immunoglobulin of the Azm (2) allotype.", Proc. Natl. Acad. Sci. U.S.A. 75:966-969(1978).
-i- MISCELLANEOUS: THE SEQUENCE OF THE ALPHA-2, REGION OF THIS MYELOMA PROTEIN IS ALSO GIVEN
                                                                                                                                                                                                                                                          HUMAN
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON TER 116 116
SEQUENCE 116 AA; 12730 MW;
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            PIR; A02050; A2HUBU.
HSSP; P01789; 1MCP.
                                                                                       MEDLINE=78137069; PubMed=416441;
Torano A., Putnam F.W.;
                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                 SEQUENCE
                                                                                                                                                                       15-JUL-1999 (Rel. 38, Last and Ig heavy chain V-III region Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P01772;
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nterPro; IPR003006; Ig_MHC
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9; Conservative
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ain V-III region GAL.
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Primates;
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Pred. No. 0.26;
2; Mismatches
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ISOLATED FROM A WALDENSTROM'S
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Pfam; PP00047; ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin v region.
NON TER 115 115
SEQUENCE 115 AA; 12379 M
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01-NOV-1990
01-NOV-1990
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PIR; A28966; A28966.
HSSP; P01772; 2FB4.
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MEDLINE=88144476; PubMed=3125551;

MIISON M.R., Middleton D., Warr G.W.;

"Immunoglobulin heavy chain variable region gene evolution: structure and family relationships of two genes and a pseudogene in a teleost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Carassius auratus (Goldfish).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Carassius.
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MART; SM00406; IGv; 1.
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Proc. Natl. Acad. Sci. U.S.A. 85:1566-1570(1988).
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heavy chain V region 3 precursor.
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2; Mismatches :
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COMPLEMENTARITY-DETERMINING-2.
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SMART; SM00406; IGv; 1.
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MREDLINE=98277139; PubMed=9614934;

Wu X., Liu B., Van der Merwe P.L.,
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Ol-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Ol-MEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable region
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HSSP; P01772; 2FB4.
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113 AA; 12437 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fragment)
                                                                                                                               ; SM00409; IG; 2.
; SM00407; IGc1; 4
; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunol. Immunopathol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                         PS00290; IG_MHC; UNKNOWN_3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ISYDGSNKYYADSVKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IPR003006; Ig_WHC.
IPR003596; Ig_v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116 AA; 12434 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67.3 kDa protein.
                                                                                                                                                                                                ; ig; 5.
                                                                   Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD56257.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116
                                                                 67296 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata; Craniata; Vertebrata; Primates; Catarrhini; Hominidae;
    87.0%;
93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87.0%;
93.8%;
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Last annotation update)
Lin heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
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Score 80; DB 4; Length 613; Pred. No. 0.00013;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 80; DB 4;
Pred. No. 2e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87:184-192(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                              60C7F5950671E315 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .ı.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kalis N.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 613 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                             NON TER
    InterPro; IPR003006; Ig_wHC.
InterPro; IPR003596; Ig_v.
                            EMBL; S80860; AAD14339.1; -
HSSP; P01772; 2FB4.
                                                          myeloma using
                                                                                          Cao J.,
                                                                                                   SEQUENCE FROM N.A.
MEDLINE=96071149; PubMed=7475288;
                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                01-NOV-1999
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
NCBI_TaxID=9606;
                                                                      "A CD10-
                                                                                                                                                                                    VH3 protein
                                                                                                                                                                                                                    01-NOV-1999
                                                                                                                                                                                                                              Q9Y509;
                                                                                                                                                                                                                                         Q9Y509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9UL84;
01-MAY-2000
                                                eukemia 9:1948-1953 (1995).
                                                                    ichtenstein A.K., Beren
A CD10-positive subset
                                                                                                                                                                 domo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003596; Pfam; PF00047; ig; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AF035030;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wu X., Liu B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Myosin-reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9UL84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.S. PubMed=9614934;
SEDLINE=98277139; PubMed=9614934;
Tim R. Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'Myosin-reactive autoantibodies in rheumatic carditis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Coung D.C.
                                                                                                                                                                                                                                                            ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                          nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                N
                                                                                                                                                                                                                                                                                                                                                                                                            SM00406;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
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                                                                                        Vescio R.A.,
                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                               ISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                           ISNDGSNKFYADSVKG
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                                                                                                                                                                                             (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                            122 AA;
                                                                                                                                                                                                                  (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TrEMBLrel. 13, (TrEMBLrel. 13, (TrEMBLrel. 19,
                                                                                                                                                                                    (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                               (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                            PCR
                                                                                                                                                                                                                                                                                                                                                                                                           IGv; 1.
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SMBLrel. 19, Last annotation update)
immunoglobulin heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD56266.1;
                                                          with patient-specific
                                                                              Berenson
                                                                                                                                          Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                             13579 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                            Ig_MHC
                                                                                                                                                                                                                                                                                                                                             73.9%;
                                                                               Rettig M.B.
erenson J.R.
                                                                                                                                                                                              12,
19,
                                                                                                                                                                                                                                                                                           66
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                                                                                                                                                                                             Created)
Last sequence update)
Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                       Score 68;
                                                                                                                                                                                                                                                                                                                                               Pred.
                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                            36054D41366545B8 CRC64;
                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                       Hong C.H.,
                                                                                                                                                                                                                                                                                                                                               No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kalis
                                                        cells is identified in fic immunoglobulin gene
                                                                                                                                                                                                                                       147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                122
                                                                                                                                                                                                                                                                                                                                             DB 4;
0.0019;
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                                                                                                                                                                                             update.
                                                                                        Kim
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                                                                                                                                                                                                                                                                                                                                                      Length 122;
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                                                                                       A., Lee J.C.,
                                                                                                                                                                                                                                                                                                                                   Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and normal
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RESULT 6
Q9ULB6
ID Q9UI
  DRRRR RRRR ROCCOOR
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Best Local S
Matches 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 12
                                                   MEDLINE=98277139; PubMed=9614934; MEDLINE=98277139; PubMed=9614934; Men der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9ULB6;
Q9ULB6;
01-MAY-2000
01-MAY-2000
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM
NON TER
SEQUENCE
                                 Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney Young D.C., "Myosin-reactive autoantibodies in rheumatic carditis
                                                                                                        Homo sapiens (Human).
Eukaryota; Metazoa; (
Mammalia; Eutheria; )
                                                                                                                                                          01-MAY-2000
01-MAY-2000
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR003596; Ig_v. Pfam; PF00047; ig; 1. SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                              "Human VH gene sequence.";
Submitted (NOV-1999) to the
EMBL; AB035268; BAA87067.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                           NON TER
                                                                                                                                                  Myosin-reactive
                                                                                                                                                                                                    29UL72
                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                        )9UL72;
                                                                                                                                                                                                                                                                                                                                                                                           nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                                         Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                       ISSP; P01772; 2FB4
                                                                                                                                                                                                                                                                                                                                                                                                                                              ange Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           munoglobulin
Immunol. Immunopathol. AF035042; AAD56278.1; P01772; 2FB4.
                                                                                                                                                                                                                                                     50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51 ISYDGSTQYYAGSVKG
                                                                                                                                                                                                                                                              2 ISYDGSNKHYADSVKG
                                                                                                                                                                                                                                                                                            11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SM00406; IGv;
                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                     IKODGSEKYÝVDSVKG 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ISYDGSNKHYADSVKG
                                                                                                                                                                                                                                                                                                                                                                                          IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Kayano H.;
                                                                                                                                                                                                                                                                                                                                 95 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TrEMBLrel. 13, Created)
(TrEMBLrel. 13, Last sequence update)
(TrEMBLel. 19, Last annotation update)
in heavy chain (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           147 AA;
                                                                                                                                             (TrEMBLrel. 13, Created)
(TrEMBLrel. 13, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
ive immunoglobulin heavy chain variable
                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                            95
                                                                                                                                                                                                                                                                                                                                  10527 MW;
                                                                                                         Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15768 MW;
                                                                                                                                                                                                                                                                                                    63.0%;
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75.0%;
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                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                          Score 58; DB
Pred. No. 0.06
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2,
                  87:184-192(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 63;
Pred. No.
                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                90A8C6D16D22574A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8489FCAAA7BC925C
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                                                                                                                                                                                                  118
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                                                                                                                                                                                                                                                                                                    DB 4;
0.06;
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                                                                                                                                                                                                                                                                                                              Length 95
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                                                         Berney S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRC64;
                                                                                                                                                                                                                                                                                          Indels
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                                      normal
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RESULT 9
Q8WR58
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SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
MEDLINE=98277139; PubMed=9614934;
                                                SEQUENCE FROM N.A.
STRAIN=NF54;
                                                                                                                                Surface antigen MB2 (Fragment)
Plasmodium falciparum (isolate
Eukaryota; Alveolata; Apicompl
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01-MAR-2002
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
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MEDLINE=21336662; PubMed=11371568;
Nguyen T.V., Fujioka H., Kang A.S., Rogers
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Mammalia; Eutheria;
                                                                                                        NCBI_TaxID=5843;
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SMART; SM00406; IGv; 1.
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InterPro; IPR003596;
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AF035043; AAD56279.1; -.
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121 AA, 13154 MW;
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Eukaryota; Alveolata;
NCBI_TaxID=5833;
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SEQUENCE
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STRAIN=VEN-IS9, AND PNG-MUZ37;
MEDLINE=21336662; PubMed=11371568;
Mguyen T.V., Fujioka H., Kang A.S.,
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Surface antigen MB2 (Pragment).
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"Stage-dependent localization of a novel parasite, Plasmodium falciparum.";
J. Biol. Chem. 276;26724-26731(2001).
                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=21336662; Pul
Nguyen T.V., Fujioka
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EMBL; AF454667; AAL57859.1; -.
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Eukaryota; Alveolata; Apicomplexa;
         SEQUENCE-
                                                                                         Stage-dependent Localization of a Novel arasite, Plasmodium falciparum.";
J. Biol. Chem. 276:26724-26731(2001).
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                                                            AF378136; AAK72251.1;
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326 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       317 AA; 37333 MW;
      414 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 19, (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                PubMed=11371568;
oka H., Kang A.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38349 MW;
   48711 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57.6%;
64.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          57.6%;
64.3%;
                                                                                                                                                                                                                                                                                                                                                                   Apicomplexa; Haemosporida; Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                            19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 53;
Pred. No. 1
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Pred. No. 1.6;
1; Mismatches
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1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
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A76F62B773E5CC4D CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7567623979D6112A CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Haemosporida; Plasmodium
                                                                                                                                                                                                         Rogers W.O., Fidock D.A.
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                                                                                                                                                         Gene
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                                                                                                                                                      Product of the Malaria
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
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Q963G9
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Best Local
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01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-OCT-2001 (TrEMBLrel. 18, Created)
01-OCT-2001 (TrEMBLrel. 18, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
ABC transport system ATP-binding protein.
                                                                                                                                               sequence of Thermoplasma volcanium proc. Natl. Acad. Sci. U.S.A. 97:14
                                                                                                                                                                                                                                                                                                    STRAIN=GSS1 / DSM 4299 / JCM 9571;
MEDLINE=20570466; PubMed=11121031;
                                     InterPro; IPR003593; AAA AIPase.
InterPro; IPR003439; ABC transportr.
InterPro; IPR001579; Chitinase_18/2
                                                                                                                         EMBL; AP000991; BAB59308.1
                                                                                                                                                                                                                                                      Kawashima T., Amano N., Koike H
Kawashima-Ohya Y., Watanabe K.,
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Thermoplasma volcanium.
Archaea; Euryarchaeota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TV0166 OR TVG0175536
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NON_TER 1 1
NON_TER 491 491
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J. Biol. Chem. 276:26724-26731(2001).
J. P378132; ARK72247.1; -
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MEDLINE=21336662; PubMed=11371568;
Mguyen T.V., Fujioka H., Kang A.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmodium falciparum.
Eukaryota; Alveolata;
                                                                                                                                                                                                  Nunoshiba T., Yamamoto Y., Aramaki H., Maki
"Archaeal adaptation to higher temperatures
                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=50339;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Thermoplasmataceae;
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MB2 (Fragment)
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                                                                                                                                                                                                                                Unoshiba T
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                                                                                                                                                                                                                                   ., Yamamoto
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                                                                                                                                                                                                             ubMed=11121031;
N., Koike H., Makino S.-I., Higuu...
N., Koike H., Makino S.-I., Higuu...
Natanabe K., Yamazaki M., Kanehori K., Kan
                                                                                                                                                                                                                                                                                                                                                                                                                                         ota; Thermoplasmata;
Thermoplasma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57536 MW;
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Pred. No.
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                                                                                                                                                    97:14257-14262 (2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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Best Local S
Matches 10
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Best Local Similarity

Matches 10; Conserv
                                                                        Kikuchi M., Takeda C., Tsujimoto Y., Asada S.
"An antibody fragment2A3 specific for native
"unan synthetic phage display library and cha.
Submitted (OCT-2000) to the EMBL/GenBank/DDBJ
EMBL; AB049915; BAB16829.1; -.
HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam, PF00047; ig; 5.—
PROSITE; PS00290; IG MHC; UNKNOWN 3.
Hypochetical protein.
SEQUENCE 597 AA; 65039 MW; 4FCA3
                                                                                                                                                                                                                                  Homo sapiens (Human).
Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.;
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC015760; AAH15760.1; -
InterPro; IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00382; AAA; 1.

PROSITE; PS00211; ASC TRANSPORTER; UNKNOWN 1.

PROSITE; PS01095; CHITINASE 18; UNKNOWN 1.

ATP-binding; Complete proteome.

SEQUENCE 305 AA; 33434 MW; A1BA9CB7D27BB7
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                   Q9HCC1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical 65.0 kDa protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2001
01-DEC-2001
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296ВВ9
                                                                                                                                                                                                                   CBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296BB9;
                        nterPro;
                                            nterPro;
                                                                                                                                                                                                                                                                                       1-MAR-2001 (TrEMBLrel. 16,
1-MAR-2001 (TrEMBLrel. 16,
1-DEC-2001 (TrEMBLrel. 19,
ingle chain Fy (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EQUENCE FROM N.A.
ISSUE=B-CELL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261 ISYDGSNERRADILK 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ISYDGSNKHYADSVKG 17
|| |: || || || |
70 ISGSGGSTYYADSVKG 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ISYDGSNKHYADSVK 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
| IPR003599; Ig. | IPR003600; Ig_like. | IPR003006; Ig_MHC. | IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53.3%; Score 49; DB 4; Length 597; ilarity 62.5%; Pred. No. 14; Conservative 2; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 16, Created)
(TrEMBLrel. 16, Last seq
(TrEMBLrel. 19, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TrEMBLrel. 19, (TrEMBLrel. 19, (TrEMBLrel. 20,
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                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata;
Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4FCA3AD8ECE263D9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A1BA9CB7D27BB755 CRC64;
                                                                                                                                                                 Asada S.,
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                             Query Match
Best Local S
Matches 9
                                                                                 SMART; SM00409;
SMART; SM00406;
SMART; SM00410;
                                                          NON TER
NON TER
SEQUENCE
           2 ISYDGSNKHYADSVKG
                             Similarity 9; Conserv
112
112 AA;
                              Conservative
                                                                               ; IG; 1.
; IGV; 1.
; IG_likė;
                                                          112
12243 MW;
                                   56.2%;
99
               17
                              4
                                    Score 48;
Pred. No.
                                                           24F1A45EC3B84788 CRC64;
                            Mismatches
                                          DB 4; Length 112;
                             Indels
                             <u>.</u>.
                            Gaps
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Search completed: June 3, 2003, 08:20:54
Job time: 9.47099 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          June 3, 2003, 08:02:14 ; Search time 7.6587 Seconds (without alignments) 295.776 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-644-668A-33
92
1 FISYDGSNKHYADSVKG 17
                                                                                221:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 908470 seqs, 133250620 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Geneseq_101002:
                                                                                                                                                                                                                                                                SIDS2/g
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                                                                                                                                                               q/geneseqp-embl/AA1993.
q/geneseqp-embl/AA1994.
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1/AA1995.DAT:*
1/AA1996.DAT:*
1/AA1997.DAT:*
1/AA1998.DAT:*
1/AA1999.DAT:*
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1-11-1	AAB39549	21	115		81	5
i-IL12	3954	21	115	88.0	81	44
i-IL12	3954	21	115	œ	81	43
i-IL12	3954	21	115	.8	81	42
1-IL12	3954	21	115		81	41
Anti-IL12	3953	21	115	œ	18	40
i-IL12	AAB39537	21	115		81	39
1-IL12	3953	21	115		81	38
1-IL12	3953	21	. 115		81	37
i-IL1	953	21	115	.8	18	36
i-IL12	3952	21	115	œ	18	35
i-IL12	3952	21	115		18	34
1-IL12	3952	21	115	.8	18	33
i-IL12	952	21	115	.8	81	32
1-IL12	952	21	115		81	31
1-IL12	951	21	115		81	0
1-IL12	951	21	115		81	29
i-hIL-	951	21	115	.8	81	8
1-hIL-	950	21	115	8	81	27
i-hIL-	949	21	114		81	26
i-hIL1	214	21	98	.8	81	25
i-hIL12	210	. 21	98		81	24
i-hIL12	386	21	17	œ	81	23
	3987	21	17		18	22
i-hIL12	3986	21	17	œ	81	21
i-hIL12	3984	21	17	œ	81	20
1-hIL12	3983	21	17	œ	81	19
i-hIL12	3983	21	17	œ	81	18
i-hIL12 an	3982	21	17	æ	81	17
i-hIL-12 a	3951	21	17	8	18	16
i-hIL-12 a	395(21	17	8	81	15
i-hIL-12 an	3948	21	17	œ	18	14
i-hIL12 an	AAB39837	21	17	9	82	13
ti-hIL12 antib	ē	21	17	٩	82	12
Anti-hIL12 antiboo	AAB39833	21	17	٠	82	11

ALIGNMENTS

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autoimmune disease; infectious rheumatoid arthritis; myastheni multiple sclerosis; insulin-der
         WPI; 2001-202933/20
                           Korman AJ, Halk EL,
                                                                   24-AUG-1999;
                                                                                      24-AUG-2000; 2000WO-US23356
                                                                                                         01-MAR-2001.
                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                        Complementarity determining region, cytotoxic T lymphocyte associated an
                                                                                                                                                                                                                                                          29-MAY-2001
                                                                                                                                                                                                                                                                              AAB67496;
                                                                                                                                                                                                                                                                                                  AAB67496 standard; peptide; 17
                                                                                                                             WO200114424-A2
                                                                                                                                                                   transplant rejection;
                                                                                                                                                                                                                                     Human heavy chain complementarity determining region 2 (CDR2).
                                              (MEDA-) MEDAREX INC.
                                                                                                                                                                                                                                                         (first entry)
                                                                   99US-0150452.
                           Lonberg N;
                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                inflammation; allergy;
                                                                                                                                                                            lupus erythematosus; abetes mellitus; inflammation;
                                                                                                                                                                                                        immune response; antibody;
n-4; CTLA-4; B7 ligand; cancer;
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Result

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Score

Match Length DB

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Description

SUMMARIES

Query

100.0

AAB67509 AAB67514 AAB39830 AAB39830 AAB39838 AAB39838 AAB67491 AAB67508 AAB67513

Human heavy chain
Light chain variab
Heavy chain variab
Anti-hIL12 antibod
Anti-hIL12 antibod
Anti-hIL12 antibod
Anti-hIL12 antibod

AAB39829

Light chain variab Heavy chain variab Anti-hIL12 antibod

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RESULT 2
AAB67509
ID AAB6
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Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin-dependent disbetes mellitus, transplant rejection, and inflammation, graft versus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB67490-99 and AAB67501-06 represents complementarity determining regions (CDRs) of human antibodies. The antibodies specifically bind to human cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal
                                                             24-AUG-2000;
                                                                                                                                                                           Region
                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                            Key
                                                                                                                                                                                                                                                                                                                                autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent disbetes mellitus; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                  cytotoxic T lymphocyte associated antigen-4; CTLA-4; B7 ligand; cancer,
                                                                                                                                                                                                                                                                                                                                                                                                 Complementarity determining region; CDR; immune response; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Light chain variable region of anti-CTLA-4 antibody 486.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB67509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB67509 standard; peptide; 118 AA
                              24-AUG-1999;
                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                          transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
(MEDA-) MEDAREX INC
                                                                                                                             WO200114424-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human sequence antibody that binds to human cytotoxic Tlymphocyte associated antigen-4, useful for inducing, augmentiprolonging immune response to antigen or for suppressing immur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FISYDGSNKHYADSVKG 17
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                                                                                                                                                                                                                                                                                                                      rejection; graft versus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                             2000WO-US23356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    À
                              9908-0150452.
                                                                                                                                                                           /note= "CDR2"
99..107
                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                            /note=
                                                                                                                                                                                                                         note= "CDR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                            "CDR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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Pred. No. 2e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                          host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inducing, augmenting or suppressing immune
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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CC human antibody 486. This antibody specifically binds to human according to the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human sequence antibody that binds to human cytotoxic lymphocyte associated antigen-4, useful for inducing, augmer prolonging immune response to antigen or for suppressing immune.
                                                                                                        diabetes mellitus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 26; Fig 7; 127pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            response in patient
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                                                                     disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-202933/20
                                                                                                     transplant rejection, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            represents the light chain variable region of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lonberg
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                                                                                                     inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  augmenting
                                                                                                     graft versus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
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片 á Query Match Best Local S Matches 17 50 1 FISYDGSNKHYADSVKG 17 Similarity FISYDGSNKHYADSVKG Conservative 100.0%; 66 0 Score 92; Pred. No. Mismatches 1.7e-07; DB 22; 0 Length 118; 0 Gaps

0

Sequence

118

A,

AAB67514 AAB67514 standard; peptide; 118 ₿

Heavy chain variable region of anti-CTLA-4 antibody 10D1

29-MAY-2001

(first entry)

autoimmune disease; infectious disease; i rheumatoid arthritis; myasthenia gravis; Complementarity determining region; CDR; immune response; cytotoxic T lymphocyte associated antigen-4; CTLA-4; B7 l multiple sclerosis; transplant rejection; graft versus insulin-dependent diabetes mellitus; inflammation host disease inflammation; lupus erythematosus allergy; ligand; cancer; antibody;

Homo sapiens.

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ARESULT 3
AAB67514
ID AAB6
XX AAB6
XX AAB6
XX Period Heav
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                    'note= "CDR3"
                                                                                                                                                                                                                                                                                                                                                      note= "CDR2"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CC The present sequence represents the heavy chain variable region of CC human antibody 10D1. This antibody specifically binds to human CC cytotoxic Tlymphocyte associated antigen-4 (CTLA-4). Such antibodies CC are used in methods for inducing, augmenting or prolonging an immune CC response to an antigen in a patient, where the antibodies block CC binding of human CTLA-4 to human B71 ligands. The antibodies are CC also useful for treating autoimmune disease in a subject caused or cc exacerbated by increased activity of T cells and for treating prostate CC cancer, melanoma or epithelial cancer. A polyvalent or polyclonal CC cancer, melanoma or epithelial cancer. A polyvalent or polyclonal CC cancer, melanoma or epithelial cancer. The prostate the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune captures for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia CC diabetes mellitus, transplant rejection, and inflammation, graft versus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 17
                            25-MAR-1999;
                                                                              24-MAR-2000; 2000WO-US07946
                                                                                                                                                28-SEP-2000
                                                                                                                                                                                                                                                                                                                                 multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                antiparasitic; antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                   Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB39830 standard; Peptide; 17
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                                                                                                                                                                                                            WO200056772-A1
                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anti-hIL12 antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB39830;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-202933/20
                                                                                                                                                                                                                                                                                                                                                                                         intisclerotic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FISYDGSNKHYADSVKG 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Halk EL,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                         9905-0126603
                                                                                                                                                                                                                                                                                                                                                                                      neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heavy chain CDR2 amino acid sequence SEQ
                                                                                                                                                                                                                                                                                                                                 rheumatoid arthritis.
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100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                       immunosuppressive;
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                                                                                                                                                                                                                                                                                                                                                                                      antipsoriatic; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 22;
1.7e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 118;
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                                                                                                                                                                                                                                                                                                                                                                                      cardiant,
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region (CDR) amino acid sequences, and also includes variable region amino acid sequences are amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39761-B39771 represent anti-IL-12 CDR3 related amino acid sequences, AAB39761-B39771 represent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in AAC61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisclerotic;
                                       antilnflammatory; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or antipen-binding fragments are useful in the treatment of disorders associated with detrimental release of human II-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition to treat human II-12 disorders.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                  This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also lides antigen binding portions that bind to IL-12. Sequences ABB39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Salfeld JG, Roguska M, Paskind M, Banerjee S, Tracey DE Kaymakcalan Z, Labkovsky B, Sakorafas P, Friedrich S, M Veldman GM, Venturini A, Warne NW, Widom A, Elvin JG, I Derbyshire EJ, Carmen S, Smith S, Holtet TL, Du Fou SL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 33;
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GENETICS INST INC.
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  Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          377pp; English.
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            1 FISYDGSNKHYADSVKG 17
                                 16;
                                          Similarity
FISYDGSNKYYADSVKG
                                 Conservative
                                       93.5%;
94.1%;
17
                               Score 86; DB Pred. No. 1.9e 1; Mismatches
                                7.
                                         1.9e-07;
                                                 DB 21;
                                 0
                                                Length 17
                                0
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RESULT 5
AAB39836
ID AAB3
XX
AC AAB3
XX
05-FEB-2001
                                                                  AAB39836;
                                                                        AAB39836 standard;
                                                          (first entry)
                                                                        Peptide;
                                                                         17
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complementarity determining regantisclerotic; neuroprotective; antiparasitic; antibacterial; in Human; neutralising antibody; interleukin-12; IL-12; rheumatoid arthritis. region; antipsoriatic; antiasthmatic; leukin-12; IL-12; antiinflammatory; CDR; antirheumatic; antiarthritic; cardiant;

Anti-hIL12 antibody heavy chain CDR2 amino acid sequence

SEQ

ID 352.

Homo sapiens.

multiple sclerosis;

WO200056772-A1

28-SEP-2000.

24-MAR-2000; 2000WO-US07946

25-MAR-1999; 99US-0126603

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                                                                                                                                                                                                                                                                                                                                                  complementarity determining region; CDR; antirheumatic; antiarthritic; antiparasitic; antibacterial; immunosuppressive; (TAR) (TAR) (TAR) (TAR)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-hIL12 antibody heavy chain CDR2 amino acid sequence SEQ ID 354.
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Kaymakcalan Z, Labkovsky B, Sakorafas P, Friedrich S, Myles A;
Veldman GM, Venturini A, Warne NW, Widom A, Elvin JG, Duncan AR;
Derbyshire EJ, Carmen S, Smith S, Holtet TL, Du Fou SL;
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88.2%;
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Pred. No. 5.9e-07;
2; Mismatches 0
                                                                                                                                                                                                                                                                                                                              immunosuppressive; Crohn's arthritis.
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24-MAR-2000; 2000WO-US07946.

28-SEP-2000.

WO200114424-A2 Homo sapiens. Homo sapiens

WO200056772-A1

multiple sclerosis;

rheumatoid

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                                                                                                                                                                                                               Complementarity determining region; CDR; immune response; antibody; cytotoxic T lymphocyte associated antigen-4; CTLA-4; B7 ligand; can autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent diabetes mellitus; inflammati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition to treat human IL-12 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                  Human
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                                                                                                                                                                                                 transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB67491 standard; peptide; 17
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Veldman GM, V
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                                                                                                                                                                                                 rejection;
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J, Carmen S,
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Z, Labkovsky B,
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Smith S,
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Irne NW, Widom A, Elvin JG,

mith S, Holtet TL, Du Fou SL;
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5.9e-07;
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                                                                                                                                                                                                                                                                                                                                                                                               (CDR2)
                                                                                                                                                                                                                           inflammation,
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                                                                                                                                                                                                                                                                                                            cancer;
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      RESULT 8
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Best Local
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                                                                                                                                                                                                                                      autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent diabetes mellitus; inflammation;
                         Region
                                                                   Region
                                                                                                               Region
                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                     cytotoxic T
                                                                                                                                                                                                                                                                                                                                   Complementarity determining region; CDR; immune response; antibody;
                                                                                                                                                                                                                                                                                                                                                                                    Light chain
                                                                                                                                                                                                                                                                                                                                                                                                                                 29-MAY-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB67508 standard; peptide; 118 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human sequence antibody that binds to human cytotoxic T lymphocyte associated antigen-4, useful for inducing, augmenting prolonging immune response to antigen or for suppressing immune
                                                                                                                                                                                                                           cransplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB67490-99 and AAB67501-06 represents complementarity determining regions (CDRs) of human antibodies. The antibodies specifically bind thuman cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Korman AJ,
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                                                                                                                                                                                                                                                                                                                                                                                  variable region of anti-CTLA-4 antibody 10D1.
                                                                                                                                                                                                                                                                                                              lymphocyte associated antigen-4;
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                                                                                        /note=
'note= "CDR3"
                                            'note=
                                                                                                                                    location/Qualifiers
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                                            "CDR2"
                                                                                        "CDR1"
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                                                                                                                                                                                                                             versus
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Pred. No. 5.9e-07;
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                                                                                                                                                                                                                           host
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RESULT 9
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Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin-dependent diabetes mellitus, transplant rejection, and inflammation, graft versus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are binding of treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal
                                             Homo sapiens.
                                                                                            multiple sclerosis;
                                                                                                          cytotoxic T lymphocyte associated antigen-4, CTLA-4; B7 lightd autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus ervthematomene.
                                                                                                                                                       Complementarity determining region; CDR; immune response;
                                                                                                                                                                                       Heavy chain variable region of anti-CTLA-4 antibody 10D1
                                                                                                                                                                                                                         29-MAY-2001
                                                                                                                                                                                                                                                          AAB67513;
                                                                                                                                                                                                                                                                                       AAB67513 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                          arthritis; myasthenia gravis;
clerosis; insulin-dependent dia
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                                                                                                                                                                                                                                                                                       peptide;
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Pred. No.
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                                                                                          is; lupus erythematosus
diabetes mellitus; inf
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                                                                                                                                        ligand; cancer;
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Key Region

Location/Qualifiers

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RESULT 10
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                                                                                                                                                                                                                                                                                                                                                                       Query Match
                        Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antisheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant antiparasitic; antibacterial; immunosuppressive; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel human sequence antibody that binds to human cytotoxic T lymphocyte associated antigen 4, useful for inducing, augmenting prolonging immune response to antigen or for suppressing immune response in patient
            multiple
                                                                                                                                                                                             AAB39829 standard; Peptide; 17
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 25;
                                                                                                    Anti-hIL12 antibody heavy chain CDR2 amino acid sequence
                                                                                                                                      05-FBB-2001
                                                                                                                                                                     AAB39829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gravis and lupus erythematosus,
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              sclerosis;
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                                                                                                                                   (first entry
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                                                                                                                                                                                                                                                                                                                                                                                                                                               transplant rejection, and inflammation, graft versus
           rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    107
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Pred. No. 5.3e
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                       3e-06;
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(first

AAB39833 standard;

Peptide;

17

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Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial; immunosuppressive; Crohn's disease;

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                                                                                                                                                                                                                                                                   C anti-11-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region C amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39561-B39771 represent anti-11-12 CDR3 related amino acid sequences, AAB39561-B39771 crepresent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and C construction of the antibodies of the invention are given in AC61062-C61071. The antibody of the invention is a neutralising C antibody and has antirheumatic; antiapthritic; antiasthmatic; cantiantiantiantiantiantiantic; antibacterial and immunosuppressive activity. The antibodies or antigen-binding fragments are useful in the treatment of disorders associated with detrimental release of human II-12,
      Matches
                                Query Match
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Kaymakcalan Z, Labkovsky
Veldman GM, Venturini A,
Veldman GM, Carmen S,
                                                                                                                           Sequence
                                                                                                                                                                                            8
                                                                                                                                                                                                                                                   especially Crohn's disease, multiple sclerosis and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease and multiple sclerosis
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treat disorders characterized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 33; Figure 2B;
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treat
      15;
                                   Similarity
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                                                                                                                                                                                         also be used in the manufacture human IL-12 disorders.
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      Conservative
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nturini A, Warne
Carmen S, Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     377pp; English.
                             89.1%;
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                                Score 82; I
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Mismatches
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Holtet TL,
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                                DB 21;
8.7e-07;
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Friedrich S, My
m A, Elvin JG, D
t TL, Du Fou SL;
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                                                                                                                                                                                                                      pharmaceutical
                                                             Length 17;
   Indels
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   Gaps
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RESULT 12
AAB39835
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Best Local S
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Kaymakcalan Z, Labkovun,
Kaymakcalan Z, Labkovun,
Venturini A, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39771 represent anti-IL-12 CDR3 related amino acid sequences, AAB39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention is a neutralising antibody and has antirheumatic; antiarthic; antisclerotic;
                                                                                                                                                                                                                                                                                                                                                                                                     antiinflammatory; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or antigen-binding fragments are useful in the treatment of disorders associated with detrimental release of human IL-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition to treat human IL-12 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis -
            antisclerotic;
                         complementarity determining
                                                                     Anti-hIL12 antibody heavy chain CDR2 amino acid sequence SEQ ID
                                                                                                      05-FEB-2001
                                                                                                                                      AAB39835;
                                                                                                                                                                  AAB39835 standard; Peptide; 17
                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 33; Figure 2B; 377pp; English.
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                                        neutralising antibody; interleukin-12;
                                                                                                                                                                                                                                                                                                           l Similarity
                                                                                                                                                                                                                                                                   FISYDGSNKHYADSVKG
                                                                                                                                                                                                                                              FIKYDGSNKYYADSVKG
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                                                                                                      (first
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                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                          89.1%;
88.2%;
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ky B, Sakorafas P, Friec
A, Warne NW, Widom A, J
S, Smith S, Holtet TL,
                                                                                                                                                                                                                                               17
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           region; CDR; antirheumatic; lve; antipsoriatic; antiasth
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                                                                                                                                                                                                                                                                                                                        Score 82; DB 21;
Pred. No. 8.7e-07
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                                                                                                                                                                                                                                                                                                                                         DB 21;
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                      IL-12; antiinflammatory;
rheumatic; antiarthritic;
         antiasthmatic; cardiant;
                                                                                                                                                                                                                                                                                                                                     Length 17;
                                                                                                                                                                                                                                                                                                           Indels
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                                                                       351.
                                                                                                                                                                                                                                                                                                        Gaps
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RESULT 13
AAB39837
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                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                Anti-hIL12 antibody heavy chain CDR2 amino acid sequence SEQ
                                                                                                       05-FEB-2001
                                                                                                                                        AAB39837;
                                                                                                                                                                           AAB39837 standard; Peptide; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                              They can also be used in the manufacture to treat human IL-12 disorders.
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treat disorders characterized l
disease and multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Salfeld JG, Roguska M, i
Kaymakcalan Z, Labkovsky
Veldman GM, Venturini A,
Derbyshire EJ, Carmen S,
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 33; Figure 2B; 377pp; English.
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                                                                                                                                                                                                                                                                                                                                   15; Conservative
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GENETICS INST INC.
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Z, Labkovsky B, Sakorafas P, Fri
Venturini A, Warne NW, Widom A,
J, Carmen S, Smith S, Holtet TL,
                                                                                                     (first entry
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Pred. No.
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3 -
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rafas P, Friedrich S, Myrk
Md. Widom A, Elvin JG, Du
TL, Du Fou SL;
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8.7e-07;
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Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant

cardiant,

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RESULT 14
AAB39487
ID AAB39
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XX
AC AAB39
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XX
DT 05-PE
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XX
Anti-
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Human
XW Human
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Best Local S
Matches 15
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Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic;
                                                              Anti-hIL-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human
                                                                                                05-FEB-2001
                                                                                                                                    AAB39487
                                                                                                                                                                    AAB39487 standard; Protein; 17
                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  anti-IL-12 antibody heavy and light chain complementarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 33; Figure 2B; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disease and multiple sclerosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-638250/61.
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multiple sclerosis; rheumatoid
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(GEMY ) GENETICS INST INC.
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                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                            PISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                         also be used in the manufacture of a pharmaceutical composition
                                                                                                                                                                                                                                                                                                                                                                                                          17 AA;
                                                    antibody heavy chain CDR2 amino acid sequence SEQ ID 3.
                                                                                                                                                                                                                                                                                                                                  Conservative
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Z, Labkovsky B, Sakorafas P, Fri
Venturini A, Warne NM, Widom A,
W, Carmen S, Smith S, Holtet TL,
                                                                                              (first entry)
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                                                                                                                                                                                                                                                                                                                                                 89.1%;
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Pred. No. 8.7e
1; Mismatches
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8.7e-07;
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PXRXPXPXPXPXQXXXX
                                                                                                     Homo sapiens
                                                                                                                        multiple
                                                                                                                                   antisclerotic; neuroprotective; antipsoriatic;
antiparasitic; antibacterial; immunosuppressiv
                                                                                                                        sitic; antibacterial; immunosuppressive; sclerosis; rheumatoid arthritis.
                                                                                                                                            antiasthmatic; cardiant;
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28-SEP-2000

24-MAR-2000; 2000WO-US07946

25-MAR-1999; 9908-0126603

(BADI) BASF AG. GENETICS INST INC.

Salfeld JG, RUS Labkovs... Kaymakcalan Z, Labkovs... Kaymakcalan Z, Labkovs... Yenturini A, V Roguska M, ra., Roguska M, ra., I. Z, Labkovsky B, Sakur., Varturini A, Warne NW, Varturini S, Smith S, F Paskind M, Banerjee S, Tracey DE, White M Y B, Sakorafas P, Friedrich S, Myles A; L, Warne NW, Widom A, Elvin JG, Duncan AR; S, Smith S, Holtet TL, Du Fou SL; White M

WPI; 2000-638250/61.

treat disorders characterized by disease and multiple sclerosis -New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's

Claim 16; Page 225; 377pp; English.

amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39561-B39771 represent anti-IL-12 CDR3 related amino acid sequences, AAB39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in AAC61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic, antisclerotic; antiinflammatory; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or antigen-binding fragments are useful in the treatment of disorders associated with detrimental release of human IL-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition interleukin-12 (II-12). The invention also includes antigen binding portions that bind to II-12. Sequence s ARB9485-B39516 represent human anti-II-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen bindi human IL-12 disorders.

Sequence 17 A

Query Match Best Local S Matches 15 15; Similarity Conservative 88.0%; Score 81; DB 21; Pred. No. 1.3e-06; Mismatches Length 17; Indels <u>.</u>. Gaps

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밁 S FISYDGSNKHYADSVKG FIRYDGSNKYYADSVKG 17 17

RESULT 15 AAB39503

AAB39503 standard; Protein; 17 B

AAB39503

SXEXEXEX 05-FEB-2001 (first entry)

Anti-hIL-12 antibody heavy chain CDR2 amino acid sequence SEQ H 19.

Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory;

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Query Match
Best Local Similarity
Matches 15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-839516 represent human anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39561-B39771 represent anti-IL-12 CDR3 related amino acid sequences, AAB39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in AAB40064-B40067.
                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis -
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FISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                         17 AA;
                                                                                                                                                88.0%; Score 81; DB 21; Length 17, Lilarity 88.2%; Pred. No. 1.3e-06; Conservative 1; Mismatches 1; Indels
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afas P, Friedrich S, Myles A;
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Holtet TL, Du Fou SL;
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Search completed: June Job time: 8.6587 secs

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Perfect score:
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Copyright (c) 1993 - 2003 Compugen Ltd.
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US-10-194-975-24
US-10-194-975-25
US-09-144-886-68
US-09-144-886-69
US-09-453-234-102
US-09-850-748-1931
US-09-880-748-295
US-09-880-748-295
US-09-880-748-1330
US-09-880-748-1331
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Sequence 1956, Ap
Sequence 982, App
Sequence 982, Appli
Sequence 7, Appli
Sequence 23, Appl
Sequence 25, Appl
Sequence 68, Appl
Sequence 104, App
Sequence 102, App
Sequence 108, App
Sequence 108, App
Sequence 110, App
Sequence 1931, Ap
Sequence 2055, Ap
Sequence 924, App
Sequence 934, App
Sequence 1330, Ap
Sequence 924, App
Sequence 924, App
Sequence 931, App
Sequence 934, App
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; ORGANISM: Homo sapiens
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US-09-880-748-1956
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Best Local S
Matches 15
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PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/277,379
PRIOR FILING DATE: 2001-03-21
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PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
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CURRENT FILING DATE: 2001-06-15
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TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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TYPE: PRT
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NUMBER OF SEQ ID NOS: 3239
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PRIOR FILING DATE: 2001-05-25
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1 FISYDGSNKHYADSVKG 17
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50 FISYDGSHKYYADSVKG 66
                                                                                    ch 88.0%; Score 81; DB Similarity 88.2%; Pred. No. 4.5 15; Conservative 2; Mismatches
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RESULT 2 US-09-880-748-952

Sequence 952, Application US/09880748
Publication No. US20030059937A1
GENERAL INFORMATION:

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US-10-078-958-7
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US-09-880-748-982
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-880-748-952
Sequence 7, Application US/10078958 Publication No. US20030070185A1
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SEQ ID NO 982
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CURRENT FILING DATE: 2001-06-15
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PRIOR FILING DATE: 2000-06-15
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TLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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FILING DATE: 2001-03-21
APPLICATION NUMBER: 60/293,499
FILING DATE: 2001-05-25
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FILING DATE: 2001-03-16
APPLICATION NUMBER: 60/277,379
FILING DATE: 2001-03-21
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OF INVENTION: Antibodies that Immunospecifically Bind BLyS
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LING DATE: 2001-05-25
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b. US20030059937A1
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88.2%;
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Pred. No.
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Pred. No. 4.5e-05
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RESULT 6
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 23
LENGTH: 98
TYPE: PRT
ORGANISM: Homo sapiens
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Matches 15
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                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Super Humanized Antibodies FILE REFERENCE: 501211.01 CURRENT APPLICATION NUMBER: US/10/194,975 CURRENT FILING DATE: 2002-10-10
                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/305,111 PRIOR FILING DATE: 2001-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/078,958
CURRENT FILING DATE: 2002-02-19
PRIOR APPLICATION NUMBER: 08/759,620
PRIOR FILING DATE: 1996-12-03
NUMBER OF SEQ ID NOS: 79
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Foote, Jefferson
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LOCATION: (22)
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ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LE REFERENCE: CELL 4.18 CON
                                                                      51 ISYDGSNKYYADSVKG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36 ISYDGSNKYYADSVKG
                                                                                                      2 ISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 ISYDGSNKHYADSVKG 17
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                                                                                                                                                         Similarity
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                                                                                                                                          Conservative
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93.8%;
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                                                                                                                                                         Score 80; DB 9;
Pred. No. 2.5e-05
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Pred. No. 2.1e-05;
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Sequence 24, Application US/101
Publication No. US20030039649A1
GENERAL INFORMATION:

Application US/10194975

PPLICANT: Foote,

Jefferson

CURRENT APPLICATION NUMBER: US/10/194,975

TLE OF INVENTION: Super Humanized Antibodies LE REFERENCE: 501231.01

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US-09-144-886-68
; Sequence 68, Application US/09144886
; Patent No. US20020155114A1
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Best Local Similarity
Matches 15; Conserve
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                                       JS-09-144-886-68
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JS-10-194-975-25
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; ORGANISM: Homo sapiens
US-10-194-975-24
                                                                                                                                            FILE REFERENCE: 2500.117USO
CURRENT APPLICATION NUMBER: US/09/144,886
CURRENT FILING DATE: 1998-08-31
NUMBER OF SEQ ID NOS: 98
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 68
LENGTH: 122
 Query Match
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LENGTH: 98
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                                                                                                                                                                                                                                                                APPLICANT: Marks, James D
APPLICANT: Amersdorfer, Peter
TITLE OF INVENTION: Therapeutic Monoclonal Antibodies That Neutralize
TITLE OF INVENTION: Botulinum Neurotoxins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/194,975
CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: US 60/305,111
PRIOR FILING DATE: 2001-07-12
NUMBER OF SEQ ID NOS: 122
SOFTWARE: PatentIn version 3.1
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                                                OTHER INFORMATION: Description of Artificial Sequence: BONT/A clone OTHER INFORMATION: 1B3 region VH epitope 3
                                                                                                       ORGANISM: Artificial Sequence
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                                                                                             FEATURE:
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                                                                                                                               TYPE: PRT
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93.8%;
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93.8%;
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 87.0%;
 Score 80; DB 9;
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Pred. No.
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Length 122;
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                                                              SEQ ID NO 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
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LENGTH: 12
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Patent No. US20020155114A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Therapeutic Monoclonal Antibodies That Neutralize TITLE OF INVENTION: Botulinum Neurotoxins FILE REFERENCE: 2500.117USO CURRENT APPLICATION NUMBER: US/09/144,886 CURRENT FILING DATE: 1999-08-31 NUMBER OF SEQ ID NOS: 98 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 08/397,072
                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 09/082,472
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APPLICANT: Amersdorfer, Peter
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)RGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                PLICANT: HANNA, NABIL
PLICANT: RAAB, RONALD W.
PLICANT: RAAB, RONALD W.
TLE OF INVENTION: RECOMBINANT ANTIBODIES FOR HUMAN THERAPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                       LE REFERENCE: 037003-028061
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RGANISM: Artificial Sequence
                                                                                                                                                                            FILING DATE: 1992-07-10
APPLICATION NUMBER: 07/856,281
                                                                                                                                                                                                                                             FILING DATE: 1995-04-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION:
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FILING DATE: 2001-05-08
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                                                                                                                                                                                                                        PLICATION NUMBER: 07/912,292
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                                                                                                                                             PLICATION NUMBER: 07,
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Pred. No. 3.1e-05
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Matches 15; Conserva
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                                                                                                                                                 09-453-234-102
                                                                  APPLICANT: Buechler, Joe

REPLICANT: Valkirs, Gunars

REPLICANT: Gray, Jeff
                                                                                                           iblication No. US20
                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Thr or Ala
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THER INFORMATION:
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        REFERENCE: 020015-000110US
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                 : GenPharm International INVENTION: Human Antibodies
                                                                                                                                                                                                  ISYDGSNKYYADSVKG 66
                                          Lonberg, Nils
Biosite Diagnostics, Inc.
                                                                                                                       Application US/09453234
D. US20030091995A1
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                                                                                                                                                                                 US-09-453-234-110
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                                                                                                                                      Sequence 110, Application US/09-Publication No. US20030091995A1 GENERAL INFORMATION:
                                   APPLICANT: GenPharm International TITLE OF INVENTION: Human Antibodies FILE REFERENCE: 020015-000110US
                                                                             APPLICANT:
                                                                                                               APPLICANT: Buechler, Joe
APPLICANT: Valkirs, Guna
PRIOR APPLICATION NUMBER: US 60/157,415
                                                                                           APPLICANT:
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             JRRENT APPLICATION NUMBER: US/09/453,234
JRRENT FILING DATE: 1999-12-01
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Lonberg, Nils Biosite Diagnostics, Inc.

Gray, Jeff

Gunare

Application US/09453234

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; SOFTWARE: PatentIn Ver. 2.1; SEQ ID NO 108; LENGTH: 225; LENGTH: 225; TYPE: PRT; ORGANISM: Homo sapiens; OTHER INFORMATION: M2-34H US-09-453-234-108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 15; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens
; OTHER INFORMATION: M2-31H
US-09-453-234-102
                                                                 Query Match
Best Local S
Matches 15
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SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 108,
                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/157,415
PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Buechler, Joe
APPLICANT: Valkirs, Gun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/453,234
CURRENT FILING DATE: 1999-12-01
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                                                                                                                                                                                                                                                                                                                                                    TLE OF INVENTION: Human Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ication No.
                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/453,234 FILING DATE: 1999-12-01
51 ISYDGSNKYYADSVKG 66
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                                                                   l Similarity
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                                ISYDGSNKHYADSVKG 17
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Biosite Diagnostics,
GenPharm Internationa
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o. US20030091995A1
                                                                   Conservative
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93.8%;
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93.8%;
                                                                                 Score 80;
Pred. No.
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Pred. No.
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PRIOR FILING DATE: 1999-10-02
NUMBER OF SEQ ID NOS: 112
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 110
LENGTH: 225
TYPE: PRT
ORGANISM: Homo sapiens
OTHER INFORMATION: M2-35H
US-09-453-234-110
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US-09-880-748-1931
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PRIOR APPLICATION NUMBER: 60/212,210
PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
PRIOR APPLICATION NUMBER: 60/276,248
PRIOR APPLICATION NUMBER: 60/277,379
DRIOR EFILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 60/277,379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver.
SEQ ID NO 1931
LENGTH: 238
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Sequence 2055, Application US/09880748
Publication No. US20030059937A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 15; Conserv
                           APPLICANT: Ruben et al.

TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523
CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
PRIOR PILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR PILING DATE: 2000-10-17
PRIOR PILING DATE: 2000-10-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REPERENCE: PF523
CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
CURRENT FILING DATE: 2001-06-15
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mes 15; Conserv
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51 ISYDGSNKYYADSVKG 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LING DATE: 2001-03-21
PLICATION NUMBER: 60/293,499
LING DATE: 2001-05-25
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CATION NUMBER: 60/276,248
G DATE: 2001-03-16
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Pred. No. 6.1e-05;
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Search completed: June 3, 2003, 08:52:55 Job time: 5.03242 secs

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Match
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfies1_nen
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US-08-313-398A-46
US-08-227-693-46
US-08-227-693-46
US-08-211-202-135
US-08-211-202-135
US-08-478-039-96
US-08-478-039-96
US-08-478-039-96
US-09-240-274-25
US-09-240-274-15
US-09-240-274-152
US-09-240-274-152
US-09-240-274-152
US-09-240-274-139
US-09-240-274-139
US-09-862-124-2
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US-08-862-124-17
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115, App

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16, Appl

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15, Appl

35, Appl

38, Appl

38, Appl

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28, Appl

129, Appl

129, Appl

139, Appl

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US-08-211-202-118
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 60606-6402

COMPUTER READABLE FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, VC

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNUMBER: GB 912
FILING DATE: 23-SEP-1991
PRIOR APPLICATION NUMBER: GB 912
FILING DATE: 25-SEP-1991
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                    REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 28
TELECOMMUNICATION INFORMATION:
                                                                                  APPLICATION NUMBER: PCT/(
FILING DATE: 15-MAY-1992
ATTORNEY/AGENT INFORMATION:
NAME: David W. Clough
                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                       APPLICATION NUMBER: GB 9206318
FILING DATE: 24-MAR-1992
PRIOR APPLICATION DATA:
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APPLICANT: WINTER, Gregory Paul
TITLE OF INVENTION: Production of chimeric
TITLE OF INVENTION: combinatorial approach
NUMBER OF SEQUENCES: 144
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: HOOGENBOOM, HE APPLICANT: BAIER, Michael
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STREET: 63
CITY: Chic
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6300 Sears Tower,
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US-08-276-852-77
US-08-899-575-72
US-08-899-575-74
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Result No.

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US-08-211-202-118
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NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                SOPTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
                                                        ELECOMMUNICATION INFORMATION: TELEPHONE: 312-474-6300
                                                                                                                                                                              APPLICATION NUMBER: GB 9: FILING DATE: 24-MAR-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 60606-6402
COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS
                                                                                                                                    FILING DATE: 15-MAY-1992 ITORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORRESPONDENCE ADDRESS:
ADDRESSEE: David W. Clough, Marshall O'Toole Gerstein Murray &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UMBER OF SEQUENCES:
                                                                                    REGISTRATION NUMBER: 36, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                           TELEFAX:
                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 25-SEI
                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/0
FILING DATE: 23-SEP-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISYDGSNKHYADSVKG 17
                                                                                                                 David W. Clough
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-3856
                                          312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/08211202
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JESPERS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100GENBOOM, Hendricus Renerus Jacobus Matteus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                           UMBER: GB 9120377.8
25-SEP-1991
                                                                                                                                                                                                                                                                                                                                        23-SEP-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.0%;
93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Laurent Stephane Anne Therese
                                                                                                                                                                                                                                                              GB 9206318.9
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                                                                                                                                                                 PCT/GB92/00883
                                                                                                                                                                                                               GB 9206372.6
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                                                                                                    36,107
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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                                                       Matches
                                                                    Query Match
Best Local
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Best Local Similarity
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                                                                                                                                                                                              NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tent No.
                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 117 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
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                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 29
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ZIP: 02110-2804
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                                                                                                                                                                                                                                                                                                                                                                                                            OFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                          PPLICATION NUMBER: PCT/JP93/00603
ILING DATE: 10-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                  PPLICATION NUMBER:
70 ISYDGSNKYYADSVKG 85
                                                       15;
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                    2 ISYDGSNKHYADSVKG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51 ISYDGSNKYYADSVKG 66
                                                                    Similarity
                                                                                                                                                     amino acid
                                                                                                                                                                                                                                                                                              Freeman, John W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225 Franklin Street
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116 amino acids
                                                                                                                                                                                                                          617-542-8906
                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                      IBM Compatible
                                                                                                                                                                                                                                        617-542-5070
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                                                                                                                                                                                                                                                                                                                                                                     27-MAR-1996
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                                                                 87.0%;
93.8%;
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SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
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93.8%; Pred. No. 5.
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                                                                                                                                                                                              115:
                                                                   Score 80;
Pred. No. 5
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5.6e-06;
                                                                                Length 117;
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                                                    Indels
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RESULT 4 US-08-331-398A-46 Sequence 46, Application US/08331398A

One Market Plaza, Steuart Street Plaza

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US-08-331-397B-46
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                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (415) 543-5043
NFORMATION FOR SEQ ID NO:
                                                                                                                                           quence 46,
tent No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (415) 543-9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 01
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                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CULE TYPE:
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APPLICATION DATA:
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G DATE: 30-SEF
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                                                                                                                                                                                                                                                                       ISYDGSNKHYADSVKG 17
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                                                                                                                                                         Application US/08331397B

    Townsend and Townsend and Crew
One Market Plaza, Steuart Street Plaza

                                                                                                                                                                                                                                                                                                       Conservative
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FitzGerald, David
Brinkmann, Ulrich
                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
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wnsend and Townsend and Crew
                                                                                                                                                                                                                                                                                                                       87.0%;
93.8%;
                                                          Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Protein
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and Their Uses
                                                                                                                                                                                                                                                                                                                                                                                     /note= "Human fetal immunoglobulin
56P1'CL Variable Heavy chain (V-H)"
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                                                                                                                                                                                                                                                                                                                                       DB 1;
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                                                                                                                                                                                                                                                                                                                                       Length 119
                                                            and Uses
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Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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DMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                             PRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, Eighth Floor CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 1..119
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                        TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER
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                                                                                                                                                                                                                                                                                                     No.
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                                                                                                                                                                                                                                                                                       INFORMATION:
                                                                                                                                                                                                                                                                                                                   46, Application US/08759804A
                                                                                                                                                           OF SEQUENCES:
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California
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                                                                              California
                                                                 USA
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                                                                                                                                                                                                         Pai, Lee
                                                                                                                                                                                                            Erinkmann, Ulrich
Pai Lee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MBER: US 07/596,289
12-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87.0%;
93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PC-DOS/MS-DOS
                                                                                                                                                                        Fusion Proteins,
                                                                                                                                                                        Tumor-Specific Antibody Fragments Fusion Proteins, and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Human fetal immunoglobulin
56P1'CL Variable Heavy chain (V-H)
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Pred. No. 5.7e-06
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Best Local (
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                                                                                                                                                                                                                                                                                                                                         ent No.
                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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APPLICATION NUMBER: US 08/331,398
PILING DATE: 28-OCT-1994
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                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 1..119
OTHER INFORMATION:
OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
                                                                                                                                                                              DDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
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                                                                                                                                                               REET:
                                                                                                                                                                                          ESPONDENCE ADDRESS:
                                                                                                                                                                                                        ER OF INVENTION:
ER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 ISYDGSNKHYADSVKG 17
                                                                                                     94105-1493
                                                                                                                                                San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                            ISYDGSNKYYADSVKG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
                                                                                                                                 California
                                                                                                                                              E: Townsend and Townsend Khourie and Crew
Steuart Street Tower, One Market Plaza
an Francisco
                                                                                                                                                                                                                                                                                                                                                      Application US/09227693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119 amino acids
                        PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                LEE, Byungkook
                                                                                                                                                                                                                                                                                          BENHAR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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30-SEP-1991
                                                                                                                                                                                                                                                               Sun-Hee
                                                                                                                                                                                                                                                                           , Eduardo A.
                                                                                                                                                                                                                    FRAGMENTS,
                                                                                                                                                                                                              HUMANIZED TUMOR-SPECIFIC ANTIBODY FRAGMENTS, FUSION PROTEINS, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.8%;
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n Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Human fet
56P1'CL Variable
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US/09/227,693
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32,762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Score 80; DB
; Pred. No. 5.7e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               015280-126140US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fetal immunoglobulin
ole Heavy chain (V-H)"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
5.7e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 119
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          FILING DATA:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 912
APPLICATION TATE: 23-SEP-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -09-227-693-46
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                                                                                                                                                                 ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 30-SEP-
PRIOR APPLICATION DATA:
                                                                                                                                    COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION
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                                                                                                                        SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                             CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 1..119
OTHER INFORMATION:
OTHER INFORMATION:
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                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                           ADDRESSEE:
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REFERENCE/DOCKET NUMBER: 15280-126-1-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                              Illinois
                                                                                                                                                                                                                                                           6300 Sears
                                                                                                 ON NUMBER:
                                                                                                                                                                                                                  USA
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                                                                                                                                                                                                                                                                                                                                                                                                     HOOGENBOOM, Hendricus Renerus Jacobus Matteus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (415)
                                                                                                                                       IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                          Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                   David W. Clough, Marshall O'Toole Gerstein Murray &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ellen Lauver
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93.8%;
                                        GB 9120252.3
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56Pl'CL VH region"
GB 9120377.8
                                                                                              US/08/211,202
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                                                                                                                                                                                                                                                        233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 80; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                               chimeric antibodies approach
                                                                                                                           Version #1.25 (EPO)
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; MOLECULE TYPE: protein
JS-08-211-202-135
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Best Local Similarity
                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: HP 9000/700 Workstation
COMPUTER: UNIX
SOFTWARE: IN house
CURRENT APPLICATION NOTA:
APPLICATION NUMBER: US/07/942,245
FILING DATE: 09-SEP-1992
CLASSIFICATION: 530
TELECOMMUNICATION: 530
TELECOM
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 120 amin-
                                                                     INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20037-3202
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: 120 amino acids
amino acid
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David W. Clough
Ther: 36,107
2010/10098ER: 28111/31960
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2100 Pensylvania Avenue, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           United States
                                                                                                                                                                                            (202) 293-7860
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312-474-6300
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SURFACE RESIDUE VENEERING OF RODENT ANTIBODIES
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93.8%;
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Anthony R.
Michael A.
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Pred. No.
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; NAME/KEY:
US-08-983-607-38
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Best Local Similarity
Matches 15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 203-773-1183
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: 203-773-9544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/IB96/01032
FILING DATE: June 28, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/9
FILING DATE: April 27, 1998
                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" 1.44 Mb diskette
                                                                                                                   LIBRARY:
                                                                                                                                                              ORGANISM: Homo sapiens (melanoma patient ORGANISM: immunized with autologous tumor cells) INDIVIDUAL ISOLATE: perispheral blood lympho-INDIVIDUAL ISOLATE: cytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DRESPONDENCE ADDRESS:
                                                                                                                LIBRARY: DM414 scFv antibodies obtained from LIBRARY: fUSE5 fusion phage construct
                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC
OPERATING SYSTEM: MS DOS
SOFTWARE: Word Processing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                               ESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: United States of America
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                                                                                                                                                                                                                                                                                                              amino acid
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                                                                                                    V575
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alan Garen
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                                                                heavy chain
                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Department of Molecular Biophysics and Biochemistry, Yale University
                                                                                                                                                                                                                                               polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION:
                                                                                                                                                                                                                                                                                               single
 87.0%;
93.8%;
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93.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/08/983,607
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DB 4; 1
5.9e-06;
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Best Local Similarity

Score 80; Pred. No.

Length 123;

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RESULT 12
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                                                                                                                         Query Match
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                                                                                                                                                                                  MOLECULE TYPE: peptide POSITION IN GENOME:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                      ELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 25-JUL-1991
TTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/912,292
FILING DATE: 10-UL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORRESPONDENCE ADDRESS
                                                                                                                                                                                                                        LENGTH: 128 amino acids
TYPE: amino acid
STRANDEDNESS: not releva
                                                                                                             Local
                                                                                                                                                                                                          STRANDEDNESS: not relevant
                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 22313-1404
                                                                                                                                                                   CHROMOSOME/SEGMENT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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                                        51 ISYDGSNKYYADSVKG 66
                                                                                               . Similarity 93.
15; Conservative
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DATE: 23-MAR-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ISYDGSNKYYADSVKG 66
                                                                   ISYDGSNKHYADSVKG 17
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                                                                                                                                                                                                                                                                                           703-836-2021
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                                                                                                          87.0%;
93.8%;
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                                                                                                          Score 80; D
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                                                                                                            2e-06
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US-09-240-274-25
                                                                                                                                RESULT 13
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PATENT NO. 625455
GENERAL INFORMATION:
APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
                                                                                             Sequence 25,
                                                                                                                                                                                                                                                                                Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tent No.
                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: peptide POSITION IN GENOME:
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 128 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
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NAME: Teskin Esq., Robin L.
                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                          CHROMOSOME/SEGMENT:
                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 07/735,064 FILING DATE: 25-JUL-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 07/856,281 FILING DATE: 23-MAR-1992
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                                                                                                                                                                                51 ISYDGSNKYYADSVKG
                                                                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                   ISYDGSNKHYADSVKG 17
                                                                                             Application US/09240274 .
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                                                                                                                                                                                                                                                                                                                                                                                                                                           128 amino acids
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                                                                                                                                                                                                                                                                   87.0%;
93.8%;
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Pred. No.
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                                                                                                                                                                                                                                                                                    Length 128
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CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1996-10-11
VUMBER OF SEQ ID NOS: 224
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 25
LENGTH: 126
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
FEATURE: TOTAL TALLER OF SEC.
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; LENGTH: 126
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: anti-Rh(D) chain D31
US-09-240-274-26

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APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER FILING DATE: 1998-04-10
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Best Local Similarity
Matches 13; Conserv
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Best Local Similarity
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ENERGY Siegel, Donald L.
RPPLICANT: Siegel, Donald L.
RITILE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
FITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-42U2
CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1998-01-11
MUMBER OF SEQ ID NOS: 224
                                                                                                                                                                                                                      quence 153, Application US/09240274
tent No. 6255455
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Q ID NO 26
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VYYDGSNKHYSDSVKG 66
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ilarity 81.2%;
Conservative
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Pred. No.
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Pred. No.
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2.7e-05;
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                                                                                                                      EARLIER FILING DATE: 1996-10-11
NUMBER OF SEQ ID NOS: 224
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 153
LENGTH: 126
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: anti-Rh(D) antibody clone SH56
                                                       Matches
                                                                   Query Match
Best Local Similarity
51 VYYDGSNKHYSDSVKG
              2 ISYDGSNKHYADSVKG 17 : ||||||||
                                                      Conservative
                                                                 82.6%;
99
                                                                   Score 76;
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2.7e-05;
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Copyright (c) 1993 - 2003 Compugen Ltd.
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4 canis famil
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7 homo sapien
5 canis famil
RESULT 2
HY3I HUMAN STANDARD; PRT; 119 AA.

ID HY3I HUMAN STANDARD; PRT; 119 AA.

AC P01770;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 03, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DI 19 heavy chain V-III region NIE.

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Ouery Match Best Local Similarity 88,8% Matches 87; Conservative Oy 1 OVOLVESGGGVVQPGRS : : : Db 1 OVELVESGGGVVZPGRS Oy 61 ADSVKGRFTISRDNSKN : : : Db 61 ABSVKGRFTISRDBSKB	HSSP; P01772; 2FB InterPro; IPR030 InterPro; IPR030 InterPro; IPR03047; ig SMARR; SM00406; I Immunoglobulin v MOD_RES NON TER 122 AA	SEQUENTED LEAR LEAR LEAR LEAR LEAR LEAR LEAR LEAR	P01768; 21-JUL-1986 (Rel. 21-JUL-1986 (Rel. 15-JUL-1999 (Rel. 15-JUL-1999 (Rel. 15 heavy chain V-I Homo saplens (Huma Eukaryota; Metazos Mammalia; Eutheris NCBI_TaxID=9606;		34 358 358 359 36 359 359 357 357 357 357 357 357 357 357
; Score 480; DB 1; Length 122; ; Pred. No. 2.6e-45; 9; Mismatches 2; Indels 0 LRLSCAASGFTESSYAMHWYRQAPGKGLEWVAVIS	4. 4. 96; Ig_WHC. 96; Ig_V. ; 1. region. PYRROLIDONE CARBOXYLIC ACID. 1 12 ; 13668 MW; A42D0F17D252F1C2 CRC64;	INCE. JINE=81013859; PubMed=6774332; an D.W., Putnam F.W.; no acid sequence of the variable region of a human mu chain tion of a possible JH segment."; Natl. Acad. Sci. U.S.A. 77:3239-3243(1980). MISCELLANEOUS; THIS MU CHAIN WAS ISOLATED FROM THE PLASMA O PATIENT WITH MACROGLOBULINEMIA. A02051; M3HUAM. A02051; M3HUAM.	01, Created) 01, Last sequence update) 38, Last annotation update) II region CAM. i); Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.	ALIGNMENTS STANDARD; PRT; 122 AA.	116 1 HV36_MOUSE P01806 119 1 HV37_MOUSE P01808 119 1 HV38_MOUSE P01808 115 1 HV32_MOUSE P01808 115 1 HV01 RAT P01808 12 1 HV01 RAT P01808 12 1 HV20_MOUSE P01798 113 1 HV28_MOUSE P01799 114 1 HV3R_HUMAN P01779 125 1 HV3R_HUMAN P01779 126 1 HV3R_MOUSE P01790 127 1 HV3R_MOUSE P01790 128 1 HV3R_MOUSE P01790 129 1 HV3R_MOUSE P01790 120 1 HV38_MOUSE P01790 121 1 HV38_MOUSE P01790
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RESULT 3
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HSSP; P01772; 2FB4.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_V.
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DISULFID
NON_TER
                                                                                                                                                                           Plorent G., Lehman D., Putnam P.W.;
"The switch point in mu heavy chains of human
Biochemistry 13:2482-2498(1974).
-I- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FRO
Pfam; PF00047; ig; 1.
SMART; &M00406; IGv; 1.
Immunoglobulin V region
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Mammalia; Eutheria;
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21-JUL-1986 (Rel. 01, Last m
15-JUL-1999 (Rel. 38, Last a
Ig heavy chain V-III region
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"Rule of antibody structure. The primary structure of a monoclon.
IgG1 immunoglobulin (myeloma protein Nel), I: Purification and characterization of the protein, the L- and H-chains, the cyanogen bromide cleavage products, and the disulfide bridges.";
Hoppe-Seyler's Z. Physiol. Chem. 357:1515-1540(1976).
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"The rule of antibody structure. The primary structure monoclonal IgG1 immunoglobulin (myeloma protein Nie). chymotryptic peptides of the H-chain, alignment of the peptides and discussion of the complete structure.", Hoppe-Seyler's Z. Physiol. Chem. 357:1571-1604 (1976).
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Dreker L., Schwarz J., Reichel W.,
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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EMBL; M35415; AAAS8735.1; -.
PIR; A02047; H3HU26.
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immunoglobulin molecule Kol and and i.0-A resolution.";
J. Mol. Biol. 141:369-391(1980).
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"Structure and multiplicity of
heavy chain variable region.";
Proc. Natl. Acad. Sci. U.S.A. 77:6561
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SEQÜENCE 119 /
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P01773;
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NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Primary structure of a human IgAl immunoglobulin. IV. § IgAl protease, digestion, Fab and Fc fragments, and the amino acid sequence of the alpha 1 heavy chain.";

J. Biol. Chem. 254:2865-2874(1979).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
Ig heavy chain V-III region BUR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=79151016;
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ISSP; P01772; 2FB4.
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                                     ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
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PubMed=107164;
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78.6%;
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FRAMEWORK.1.
COMPLEMENTARITY-DETERMINING-1.
FRAMEWORK.2.
COMPLEMENTARITY-DETERMINING-2.
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Pfam; PP00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
MOD_RES 1 1 P)
NON_TER 114
                      Hilschmann N.;
Submitted (JUN-1975) to
-!- MISCELLANEOUS: THIS
MACROGLOBULIN.
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HV3T I
                                                                                                                                                                                                                     Watanabe S., Barnikol H.U., Horn J., Bertram J., Hilschmann N.; "The primary structure of a monoclonal IgM-immunoglobulin (macroglobulin Gal), II: the amino acid sequence of the H-chain type), subgroup H III. Architecture of the complete IgM-molecule. The pre-Seyler's Z. Physiol. Chem. 354:1505-1509(1973).
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation ig heavy chain V-III region GAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
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"Amino acid sequence of the Fv region of a human monoclonal Igm
(protein WEA) with antibody activity against 3,4-pyruvylated
galactose in Klabsiella polysaccharides K30 and K33.";

Proc. Natl. Acad. Sci. U.S.A. 80:4837-4841(1983).

-I- MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM A MONOCLONAL ANTIBODY
AGAINST 3,4-PYRUVYLATED GALACTOSE AND ISOLATED FROM A PATIENT WITH
                                                                                                                                                              EVISION TO 28-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CBI_TaxID=9606;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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HSSP; P01772; 2FB4.
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15-JUL-1999 (Rel. 38, Last annot
Ig heavy chain V-III region WEA.
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Primates;
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Pred. No. 2.6e
L2; Mismatches
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21-JUL-1986
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21-UTL-1986 (Rel. 01, Created)
21-UTL-1986 (Rel. 01, Last sequence update)
15-UTL-1999 (Rel. 38, Last annotation update)
To heavy chain V region MOPC 21 precursor (Fragment).
DOMAIN
DISULFID
CONFLICT
CONFLICT
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entre the European Bioinformatics Institute. There are no restitute the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companies of the companie
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Adetugbo K., Milstein C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Heavy chain variable region contribution to the NPb family of antibodies: somatic mutation evident in a gamma 2a variable region."; Cell 24:625-637(1981).
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
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                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=77100368; PubMed=401950;
Adetugbo K., Milstein C., Secher D.S.;
"Molecular analysis of spontaneous somatic mutants.";
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InterPro; IPR003596; Ig_v.
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Paskind M., Reth
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Pred. No. 5.6e
7; Mismatches
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; Ig; 1.
SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON TER 120 120
SEQUENCE 120 AA; 13227 MW;
                                      HV3M HUMAN
P01774;
21-JUL-1986
21-JUL-1986
15-JUL-1999
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Comparative studies on monotypic IgM lambda and IgG kappa from an individual patient. III. The complete amino acid sequence of the 'region of the IgM paraprotein.",
Immunochemistry 13:995-999(1976).
I-- MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM IGM ISOLATED FROM SERUM OF A PATIENT WITH MALIGNANT LYMPHOMA OF THE WALDENSTROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=77117674; PubMed=65324; Capra J.D., Hopper J.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
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21-JUL-1986 (Rel.
15-JUL-1999 (Rel.
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Similarity 80.6%;
79; Conservative
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V-III region POM.
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Pred. No. 8.4e-37;
8; Mismatches 10
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Pred. No. 6.7e-37;
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      Query Match
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Matches 74; Conser
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Best Local :
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HVJE HUMAN

PO1767;

PO1767;

21-JUL-1986 (Rel. 01, Created)

21-JUL-1996 (Rel. 01, Last sequence upd:
15-JUL-1999 (Rel. 38, Last annotation upd:
15 heavy chain V-III region BUT.
Homo saptens (Human)

Riveryork Motors
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PIR; A02057; M3HUPM.

HSSP; P01772; 2FB4.

InterPro; IPR003006; Ig_MHC.

InterPro; IPR003596; Ig_v.

Pfam; PF00047; Ig; I.

SMART; SM00406; IGv; I.

Immunoglobulin V region.

VARIANT 54
                                                                                                                                                                                                                                                                                     "Complete amino acid sequence of the alpha 2 heavy chain of a IGA2 immunoglobulin of the A2m (2) allotype.", Proc. Natl. Acad. Sci. U.S.A. 75:966-969(1978).

-I- MISCELLANEOUS: THE SEQUENCE OF THE ALPHA-2, A2M(2) ALLOTYF
                                                                                                                                                                   SMART;
                                                                                                                                                                                                                                                   PIR; A02050; A2HUBU.
HSSP; P01789; IMCP.
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SEQUENCE
                                                                                                                         Immunoglobulin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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                                                                                                                                                                                                                                 InterPro;
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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                                                                                                                                                     #Pro; | IPR003006; | Ig_MHC.
#Pro; | IPR003596; | Ig_v.
n; | PF00047; | Ig; | 1.
RT; | SM00406; | IGv; | 1.
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12379 MW;
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Primates;
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                      77.6%; Score 397.5; DB 1; Length 115; 75.5%; Pred. No. 2.2e-36;
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Pred. No. 1.6e-36;
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/FTId=VAR_003966.
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Matches 75
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SMART; SM00406; IGv; 1.
Immunoglobulin V region.
NON TER 98 98
SEQUENCE 98 AA; 11007 N
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HSSP; P01772; 2FB4.
InterPro; IPR003006; I
InterPro; IPR003596; I
                                                                                                                                                                                                                                            the primary immune response.";
J. Exp. Med. 169:2007-2019(1989).
-!- MISCELLANEOUS: THIS SEQUENCE
                                                                                                                                                                                                                                                                                         MEDLINE=89279149; PubMed=2499654;
Levy N.S., Malipiero U.V., Lebecq
                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
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01-NOV-1990 (Rel.
15-JUL-1999 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1990
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                                                                                                                                                                                                                                                                              Early onset of somatic mutation
                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
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                  61 ADSVKGRFTISRDNSKVTLYLQMNSLRAEDTAVYYCAR 98
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EVQLVESGGGLVKPGGSLKLSCAASGFTFSDYYMYWVRQTPEKRLEWVATİSDGGSYTYY
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76.5%;
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Pred. No. 4.4e-36;
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Search completed: June 3, 2003, 08:15:44
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Copyright (c) 1993 - 2003 Compugen Ltd.
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ALIGNMENTS

01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)

(TrEMBLrel. 21, La 67.3 kDa protein.

lomo sapiens (Human)

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DR InterPro; IPR003006; Ig_V.

Pfam; pF00047; 1g; 5.

R SMART; SM00409; IG; 2.

R SMARR; SM00409; IGc1; 4.

R SMARR; SM00400; IGc1; 4.

PROSITE; PS00290; IG MHC; UNKNOWN_3.

Hypothetical protein.

SEQUENCE 613 AA; 67296 MW.
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Matches 96
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Mammalia; Eutheria;
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InterPro; IPR003599;
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Matches 95
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Q9UL90;
01-MAY-2000
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SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
MEDLINE=98277139; Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                              Clin. Immunol. Immunopathol. 87:184-192(1998).
EMBL; AF035024; AAD56260.1; -.
HSSBL P01772; 2FB4.
                                                                                                                                                                                                                                                      Wu X., Liu B., Van Young D.C.;
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01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
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Mammalia; Eutheria;
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01-MAY-2000
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116 AA;
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n der Merwe P.L.,
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Primates;
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          Ig_v.
                                              Ig_MHC.
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99.0%;
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Best Local S
Matches 92
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Q9UL71;
01-MAY-2000
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Q9UL84;
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MEDLINE=98277139; PubMed=9614934;
Van der Merwe P.L.,
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                      Myosin-reactive
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
NON TER 1
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Mammalia; Eutheria;
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92; Conserv
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122 AA;
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0 (TrEMBLrel. 13, 1
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113 AA;
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(TrEMBLrel. 13, Last sequence update)
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(Trembled. 19, Last annotation update)
                                                                                                                                                                                                                                          Conservative
                                                                                 PRELIMINARY;
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(Human)
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5; IGv;
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Pred. No. 2.1e-44;
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Catarrhini;
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1. No. 1.3e-40;
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01-DEC-2001
                                                                                                                                                           NON TER
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MEDLINE=98277139; PubMed=9614934;
Wu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                       myeloma using PCR with
                                                                                                                                                                                                                                                                                                                                   MEDLINE=96071149; PubMed=7475288;
Cao J., Vescio R.A., Rettig M.B., Hong C.H.,
Lichtenstein A.K., Berenson J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
                                                                                                                                                                                         Pfam; PF00047; ig; 1.
SMART; SM00406; IGv;
                                                                                                                                                                                                                                                        EMBL; S80860; AAD14339.1; -. HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7H3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      297509
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Mammalia; Eutheria;
                                                                                                                                                                                                                    nterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                      interPro; IPR003006; Ig_MHC
                                                                                                                                                                                                                                                                                                                                                                                                                                    lukaryota; Metazoa; Chordata; lammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Coung D.C.
                                                                                                                                                                                                                                                                                          eukemi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nterPro;
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                                                                                                                                                                                                                                                                                                                                                                                    EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      omo sapiens (Human)
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                                                                                                                                                                                                                                                                                                                        CD10-positive subset
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P01772; 2F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                             84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84;
                                                                                                          Similarity
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                                              QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
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ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EVQLVESGGGVVQPGGSLRLFCAASGFTFDGYAMHWVRQAPGKGLEWVSLISGDGGSTYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IPR003596; Ig_v.
                                                                                                                                                         147 AA; 15768 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel. 12, (TrEMBLrel. 12, 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 AA;
                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Fragment).
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                              VESGGGVVQPGKSLRLSCEASGFTFSTYGMSWVRQAPGKGLDWVALISYDGSTQYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . Immunopathol. 87:184-192(1998)
3; AAD56279.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13154 MW;
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                                                                                                         87.3%;
85.7%;
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85.7%;
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                                                                                                                                                                                                                                                                                                       patient-specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation updat
                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 447;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                           8489FCAAA7BC925C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2F045CCFA5D50736 CRC64;
                                                                                          ore 447; DB 4; Length 147; ed. No. 3.5e-40; Mismatches 8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kalis N.N.,
                                                                                                                                                                                                                                                                                                                        cells is identified in multiple
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                                                                                                                                                                                                                                                                                                                                                      Kim A.,
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                                                                                                                                                                                                                                                                                                                                                      Lee
                                                                                                                                                                                                                                                                                                                                                    J.C.,
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Best Local Similarity
Matches 82; Conserv
  Best Local Similarity
                     Query Match
                                                                                                                                     SMART; SM00409; IG; 1.
SMART; SM00407; IGC1;
SMART; SM00406; IGV; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R.;
Submitted (OCT-2001) to the EMBL/Genl
EMBL; BC015760; AAH15760.1; -.
Interpro; IPR003006; Ig_MHC.
Pfam; PF00047; ig; 5
PROSITE; PS00290; IG_MHC; UNKNOWN_3.
                                                                   Hypothetical protein SEQUENCE 573 AA;
                                                                                                                                                                                                                                                                                                                                                  Strausberg R.;
Submitted (JAN-2002)
                                                                                                                                                                                                                                                                                                         EMBL; BC021276; AAH2
InterPro; IPR003599;
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8WU38
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation updat
                                                                                                                    PROSITE; PS00290;
                                                                                                                                                                                                      efam; PF00047; 19; 4
                                                                                                                                                                                                                                                                                                                                                                                                   rissue=Tonsil;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hypothetical
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                                                                                                                                                                                                                                                      nterPro; IPR003006;
                                                                                                                                                                                                                                                                            nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            )8WU38;
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TISSUE=B-CELL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lomo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pothetical 63.0 kDa protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62
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(TrEMBLrel. 19, Last sequence up
(TrEMBLrel. 20, Last annotation
1 65.0 kDa protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                          AAH21276.1;
                                                                                                               IG_MHC; UNKNOWN_2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65039 MW; 4FCA3AD8ECE263D9 CRC64;
                                                                   62967 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
                                                                                                                                                                                                                                                      Ig_c1.
84.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85.2%;
83.7%;
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                                                                                                                                                                                                                                                                                                                                                     EMBL/GenBank/DDBJ databases.
  Score 432;
Pred. No. 7
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Pred. No. 3e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi;
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                                                                   FD072344033AC530 CRC64;
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  DB 4;
.7e-38;
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                   Length 573;
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Q9ULB6
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Best Local S
Matches 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                  QSTC77
                  Strausberg R.;
Submitted (FEB-2002) to the
EMBL; BC024289; AAH24289.1;
                                                                           NCBI_TaxID=9606;
                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                      01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 51,8 kDa protein.
                                                                                                                                                                                                                                                                                                                                                                    NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primatee;
NCBI_TaxID=9606;
          Hypothetical protein
                                                    SEQUENCE FROM N.A.
TISSUE=SPLEEN;
                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tange Y., Kayano H.;
"Human VH gene sequence.";
Submitted (NOV-1999) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9ULB6,
                                                                                                                                                                                                                                                                                                                                                           SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00047; 1g; 1.
SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00047; 1g;
                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AB035268; BAA87067.1;
HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                         nterPro; IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence up
01-DEC-2001 (TrEMBLrel. 19, Last annotation
Imunoglobulin heavy chain (Fragment).
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                                                                                                                                                                                                                                                 DSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYC
                                                                                                                                                                                                                                                                    VQLEESGGGLVQPGGSLRLSCAASGFTFSSYWMSWVRQAPGKGLEWVANIKQDGSEKYYV 60
                                                                                                                                                                                                                                                                                      VQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYYA
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                                                                                                                                                                                                                                                                                                                                                        95 AA;
                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                 Conservative
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10527
                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                    Chordata;
 51791 MW;
                                                                                                                                                                                                                                                                                                                         84.0%;
                                                                                                                                                                                                                                                                                                                                                        MW;
                             EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                        Score 430; DB 4;
Pred. No. 1.3e-38;
                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata;
Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                      90A8C6D16D22574A CRC64;
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 388F7F4CF588660E
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CRC64
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RESULT 12
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Q9UL91
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Matches 82
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                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                            Q9HCC1;
01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                  Single chain Fy (Fragment).
      SEQUENCE FROM N.A.
Kikuchi M., Takeda C., Tsujimoto Y
"An antibody fragment2A3 specific
                                                                            Homo sapiens
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                                                                                                                                                                                                                                                                                                             SEQÜENCE
                                                                                                                                                                                                                                                                                                                                           SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Wu X., Liu B., Van der Merwe
Young D.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
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01-MAY-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98277139; PubMed=9614934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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XT; SM00406; IGv; 1.
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                                                                                                                                                                                                                                                                                                                                                            IPR003596;
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118 AA;
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                                                                            (Human)
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                                                       Chordata;
Primates;
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                                                                                             Last sequence up
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Pred. No. 2.9e
7; Mismatches
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                                                       Craniata; V
Catarrhini;
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Pred. No. 1.3e-37;
9; Mismatches 7
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                                                       Vertebrata;
i; Hominidae;
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      3., Nagata
9 lysozyme
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                                                                Euteleostomi;
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NON_TER
SEQUENCE
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                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Myosin-reactive immunoglobulin heavy chain variable
                                                                                                                             SEQUENCE
                                                                                                                                                          InterPro; IPR003596; Ig_v. Pfam; PF00047; ig; 1. SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=98277139;
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01-MAY-2000
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InterPro; IPR003600; Ig_like.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
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HSSP; P01772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted
                                                                                                                                                                                                                                                         oung D.C.;
                                                                                                                                                                                                                                                                                                                                               łomo sapiens (Human)
                                                                                                                                                                                                                                              Myosin-reactive autoantibodies in rheumatic carditis and normal
                                                                                                                                                                                                                                                                                                                                                        Fragment)
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                                                                                              Local
                                                                                                                                                                                                       P01772; 2FB4.
                                                                                                                                                                                                                AF035042; AAD56278.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               synthetic phage display library and characterization."; tted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
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                                                                                                                                                                                                                         Immunol. Immunopathol.
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SM00409; IG; 1.
SM00406; IGV; 1.
SM00410; IG_like; 1.
                                                                                    82;
                                                                                             Similarity
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                                                   ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR
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                                         EVQLVESGGGLVQPGGSLRLSCAASGFTVSSNYMWVRQAPGKGLESVSV-TYSGGSSYY
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                                                                                                                                                                                          IPR003006; Ig_MHC.
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112 AA;
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KGRFTISRDNSKNTLYLOMNSLRAEDTAFYYCAR
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n der Merwe P.L.,
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12243 MW;
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Pred. No. 1.9e
10; Mismatches
                                                                                  Score 410.5;
Pred. No. 2.1e
6; Mismatches
                                                                                                                                                                                                                          87:184-192 (1998)
                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                           B4D1A5944B2D5CCA CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                      118
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1.9e-37;
                                                                            2.1e-36;
9;
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97
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                                                                                  Indels
                                                                                                     Length
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Matches 77
  Query Match
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                                                                                                                                                                        Strausberg R., Strausberg R., Submitted (JUL-2001) to the Et EMBL; BC010327; AAH10327.1; -
MGD; MGI:2144967; AU044919.
InterPro; IPR000345; CytC heme InterPro; IPR000306; Ig_MHC.
Pfam; PF00047; ig; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AK027379; BAB55072.1; -.
InterPro; IRR003006; Ig_MHC.
Pfam; PF00047; 1g; 4.
PROSITE; PS00290; IG MHC; UNKNOWN 1.
SEQUENCE 494 AA; 53088 MW; 9AID7AEB5AEE4COE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-MAMMARY GLAND;
ISOGAI T., Ota T., Hayashi K., Sugiyama T., Otsuki T., Su
Isogai T., Ota T., Hayashi K., Sugiyama T., Otsuki T., Su
Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H.,
Wagatsuma M., Hosoiri T., Kaku Y., Kodaira H., Kondo H.,
Takahashi M., Chiba Y., Ishida S., Murakewa K., Ono Y., T
Watanabe S., Kimura K., Murakami K., Ishii S., Kawai Y.,
Yamamoto J., Wakamatsu A., Nakamura Y., Nagahari K., Masu
Ninomiya K., Iwayanagi T.,
                                                                        Hypothetical protein. SEQUENCE 473 AA; 51946 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "NEDO human cDNA sequencing Submitted (MAY-2001) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-JUN-2002 (TrEMBLrel. 12, Last annotation update)
CDNA FLJ14473 fis, clone MAMMA1001080, highly similar sapiens SNC73 protein (SNC73) mRNA.
Homo sapiens (Human)
                                                                                                                 PROSITE; PS00190; CYTOCHROME C; UNKN PROSITE; PS00290; IG_MHC; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical
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(TrEMBLrel. 21, )
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78.9%; Score 404; DB 4; llarity 78.6%; Pred. No. 6.4e-35; Conservative 10; Mismatches 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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78.3%;
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EMBL/GenBank/DDBJ databases
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Score 401;
Pred. No. 1
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Sciurognathi; Muridae;
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                                                                           CF625F008932AF12 CRC64;
                                                                                                                                              UNKNOWN_1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ono Y., Takiguchi
                       Length 473;
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; Homo.
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Matches 75; Conservative 11; Mismatches 12; Indels

0; Gaps 0;

Search completed: June 3, 2003, 08:20:47 Job time: 50.8328 secs

61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR 98

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GenCore version (c) 1993 - 2003

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Minimum
Maximum
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Gapop 10.0 , Gapext 0.5
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512
1 QVQLVESGGGVVQPG
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/SIDS2/gcgdata/geneseq/geneseqp-embl/AA2001.
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     AAB40101
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Compugen Ltd
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Anti-hIL12 antibod
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Anti-hIL12 antibod	AAB40121	21	98	.7	501	
melanoma ant	AAW13531	18	123	97.9	501.5	
GF beta-2 s	AAW15523	18	117	8	ເກ	
chair	AAR22571	13	115		502	
hIL12	AAB40119	21	98	8	502	
BLyS	ABP45098	23	249	۳.	504	
Human BLys binding	ABP45616	23	252	8	505	
human	AAY08598	20	223	ω.	505	
TGF b	AAW15534	18	123	8	505	
FVII	AAY50962	21	98		505	
hIL12	AAB40124	21	98	œ	505	
TNF	AAR34283	14	98	8	505	
BLyS	ABP44972	23	254	8	506	
	AAB40109	. 21	98	9	507	
	AAB40100	21	98	٩	507	
Human BLyS binding	ABP45720	23	252	٩	508	
	AAR66321	16	117	٩	508	
	AAB40128	21	98	9	508	
hIL12	AAB40120	21	98	9	508	
N	AAB40118	21	98	9	508	
hIL12	AAB40117	21	98	٥	508	
hIL12	AAB40116	21	98		508	
hIL12	AAB40115	21	98	9	508	
hIL12 ant	AAB40098	21	98	۴	508	
1 binding h	AAY56637	21	490	9.	509	
clone 2	AAY56287	21	254	۰.	509	
an foetal im	AAR95216	17	119	٥	509	
adipocyte	AAU02538	22	113	9	509	
adipocyte	AAU02537	22	113	٥	509	
ゴ	AAB40111	21	9	99	509	
secreted	08199	23	\vdash	8	512	
BL/	491	23	4	8	512	
chain varia	8	15	120	00.	512	
DP-46 heavy	\boldsymbol{L}	23	118		512	
Anti-tumour necros	AAM51164	23	115	100.0	512	

ALIGNMENTS

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RESULT 1
AAB40099
                                                                                                                                                                                                                                         complementarity determining region; CDR; antirheumatic;
antisclerotic; neuroprotective; antipsoriatic; antiasthm
antiparasitic; antibacterial; immunosuppressive; Crohn's
                                                                                                                                                                                                                                                   Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; arrianlernin; neuroprotective; antipsoriatic; antiasthmatic; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                     AAB40099 standard; Protein; 98
                                                                                                                        24-MAR-2000; 2000WO-US07946.
                                                                                                                                                   28-SEP-2000
                                                                                                                                                                           WO200056772-A1
                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                              multiple sclerosis;
                                                                                                                                                                                                                                                                                                        Anti-hIL12 antibody H chain V region amino acid sequence SEQ ID 625.
                                                                                                                                                                                                                                                                                                                                    05-FEB-2001
                                                                                                                                                                                                                                                                                                                                                             AAB40099;
                                                                                                25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                9905-0126603.
                                                                                                                                                                                                                              rheumatoid arthritis.
                                                                                                                                                                                                                                         immunosuppressive; Crohn's disease;
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Salfeld JG, Roguska M, P Kaymakcalan Z, Labkovsky Veldman GM, Venturini A, Derbyshire EJ, Carmen S,

Paskind M. Banerjee S. Tracey DB. White M. ky B. Sakorafas P. Friedrich S. Myles A; A. Warne NW, Widdom A. Elvin JG. Duncan AR; S. Smith S. Holtet TL, Du Fou SL;

White M;

(BADI) BASF AG. (GEMY) GENETICS INST INC.

disease

WPI; 2000-638250/61

New human antibody specific for treat disorders characterized multiple sclerosis for human interleukin-12 (IL-12) used to ed by aberrant IL-12 expression e.g. Crohn's

Claim 75; Page 121; 377pp; English.

This invention relates to a new human antibody specific for human CC interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB3948-B39516 represent human CC anti-IL-12 antibody heavy and light chain complementarity determining CC region (CDR) amino acid sequences, and also includes variable region CC amino acid sequences. Other variable region and sequences are CC given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39712-B39771 CC represent anti-IL-12 CDR3 related amino acid sequences AAB39712-B40063 CC represent other CDR sequences. Light chain CDR3 consensus sequences are CC given in AAB40064-B40067. Primers used in the identification and CC Construction of the antibodies of the invention are given in AAB40064-B40067. Primers used in the identification and CC AAC61062-CS1071. The antibody of the invention are given in CC AAC61062-CS1071. The antibody of the invention is a neutralising CC antibnody and has antirheumatic; antiarthritic; antisclerotic; CC antisflammatory; neuroprotective, antisportatic; antisathmatic; CC cardiant; antiparastic; antisathmatic; antibodies or antigen-binding framences are useful in the treatment confidence of antiparastic activity. The antibodies or antigen-binding framence are useful in the treatment of Alsovabera accordance with Acettiments are useful in the treatment of Alsovabera accordance with Acettiments are useful in the treatment of Alsovabera accordance with Acettiments are useful in the treatment of Alsovabera accordance with Acettiments are useful in the treatment of Alsovabera accordance with Acettiments are useful. of disorders associated with detrimental release of human IL-12, percentally Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition to treat human IL-12 disorders. pharmaceutical composition the treatment IL-12,

Sequence : 98 AA;

문 S 片 8 Query Match
Best Local Similarity
Matches 98; Conserv 61 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR 98 ADSVKGRFTI GRDNSKNTLYLOMNSLRAEDTAVYYCAR QVQLVESGGGVVQPGRSLRLSCAASGFTPSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY Conservative 100.0%; Score 512; DB 21; 100.0%; Pred. No. 1.9e-41; tive 0; Mismatches 0; 98 Indels Length 98; 0 Gaps 60 60 0

AAB40101 standard; Protein; 98 ₿

AAB40101;

05-FEB-2001 (first entry.

Anti-hIL12 antibody H chain V region amino acid sequence SEQ ID 627.

multiple sclerosis; antisclerotic; neuroprotective; antiparasitic; antibacterial; it complementarity determining Human; neutralising antibody; interleukin-12; rheumatoid region; immunosuppressive; nterleukin-12; IL-12; antiinflammatory;
ion; CDR; antirheumatic; antiarthritic;
antipsoriatic; antiasthmatic; cardiant; Crohn's

Homo sapiens.

WO200056772-A1.

24-MAR-2000; 2000WO-US07946.

25-MAR-1999, 99US-0126603.

(BADI) BASF AG. (GEMY) GENETICS INST INC

Salfeld JG, Roguska M, F Kaymakcalan Z, Labkovsky Veldman GM, Venturini A, Derbyshire EJ, Carmen S, Paskind M, Warne NW, Smith S, Smith ind M, Banerjee S, Tracey DE, Wh Sakorafas P, Friedrich S, Myles rne NW, Widom A; Elvin JG, Dunca ith S, Holtet TL, Du Fou SL; Duncan AR; White M;

WPI; 2000-638250/61.

New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis

Claim 75; Page 121; 377pp; English.

AAC61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisclerotic; antiinflammatory; neuroprotective; antiscriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or antigen-binding fragments are useful in the treatmen of disorders associated with detrimental release of human IL-12, region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39561-B39771 represent anti-IL-12 CDR3 related amino acid sequences, AAB39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining human in the treatment

Sequence 86 AA;

Query Match Best Local S Matches 98 Similarity QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY Conservative 100.0%; 0 Score 512; Db 21; Pred. No. 1.9e-41; Indels 0 Gaps

60 60 Length

, 86

Ś 당 61 61 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98 98

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AAB40102 ID AAB4 RESULT 3 AAB40102 standard; Protein;

86

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AAB40102;

05-FEB-2001 (first entry)

Anti-hIL12

antibody H chain V region amino

acid

sequence

ä

antisclerotic; neuroprotective; antiparasitic; antibacterial; i multiple sclerosis; rheumatoid Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antipsoriatic; antiasthmati cardiant

cacterial; immunosuppressive; rheumatoid arthritis.

Homo sapiens.

WO200056772-A1

28-SEP-2000

24-MAR-2000; 2000WO-US07946

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RESULT 4
AAB40103
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Matches
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                                                multiple sclerosis;
                                                              Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antiselerotic; neuroprotective; antipeoratic; antiathmatic; cardiant; antiparasitic; antibacterial; immunosuppressive; Crohn's disease;
                                                                                                                                                         Anti-hIL12
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                                                                                                                                                                                                                             AAB40103;
                                                                                                                                                                                                                                                            AAB40103 standard; Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 75; Page 121; 377pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human antibody specific for human interleukin-12 (IL-12) used treat disorders characterized by aberrant IL-12 expression e.g. Codisease and multiple sclerosis -
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Veldman GM, Venturini
Derbyshire EJ, Carmen
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GENETICS INST INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         also be used in the manufacture human IL-12 disorders.
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                                                                                                                                                         antibody
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, Labkovsky B, Sakorafas P, Friedrich S, My,
Venturini A, Warne NW, Widom A, Elvin JG, bh
J, Carmen S, Smith S, Holtet TL, Du Fou SL;
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                                                rheumatoid
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Pred. No. 1.9e-41;
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Homo sapiens

Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant;

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Best Local S
Matches 98
                                                             Anti-hIL12 antibody H chain V region amino acid sequence SEQ ID
                                                                                              05-FEB-2001
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Kaymakcalan Z, Labkovsky
Veldman GM, Venturini A,
Derbyshire EJ, Carmen S,
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GENETICS INST INC.
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Smith S,
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rne NW, Widom A,
ith S, Holtet TL,
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Pred. No. 1.9e-41;
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RESULT 6
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                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 98
                                                                                AAB40105 standard;
                                                 AAB40105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis -
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                 especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition
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Derbyshire EJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jalteru Z, Laure Kaymakcalan Z, Laure GM, Venturini
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(GEMY ) GENETICS INST INC
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                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                    QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
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                                                                                                                                                                                                                                                                                                                                                                                                                      human
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                                                                                                                                                                                                                                                                                                                                                                                     98
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Z, Labkovsky B, Sakorafas P, Friedrich S, Myles
Venturini A, Warne NW, Widom A, Elvin JG, Dunca
WJ, Carmen S, Smith S, Holtet TL, Du Fou SL;
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Pred. No. 1.9e-41;
Mismatches 0;
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(first entry)

RESULT 7 AAB40106 ID AAB4

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Query Match Best Local S Matches 98

Similarity

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Score 512; DB 21; Pred. No. 1.9e-41;); Mismatches 0;

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CC anti-II-12 antibody heavy and light chain complementarity determining CC region (CDR) amino acid sequences, and also includes variable region CC amino acid sequences. Other variable region amino acid sequences are CC given in ARB39517-B39560 and ARB40068-B40149. Sequences ARB39561-B39771 CC represent anti-II-12 CDR3 related amino acid sequences AAB3972-B40063 CC represent other CDR sequences. Light chain CDR3 consensus sequences are CC given in ARB40064-B40067. Primers used in the identification and CC construction of the antibodies of the invention are given in ARB4064-B40067. Primers used in the identification and CC antibody and has antirhematic; antiarthritic; antisclerotic; antibody and has antirhematic; antiarthritic; antisclerotic; antisclerotic; antibody and has antirhematic; antispsoriatic, antischmatic; CC cardiant; antiparastic; antisclerotic; antisclerotic; antibodies or antigen-binding fragments are useful in the treatment CC of disorders associated with detrimental release of human II-12. CC They can also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical composition and also be used in the manufacture of a pharmaceutical compositi
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Best Loc Matches Query Match

Local

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Score 512; DB 21; Pred. No. 1.9e-41; ; Mismatches 0;

Length Indels

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Query Match Best Local

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IL-12 disorders.

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This invention relates to a new human antibody specific for human CC interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human CC anti-IL-12 antibody heavy and light chain complementarity determining CC region (CDR) amino acid sequences, and also includes variable region CC amino acid sequences. Other variable region amino acid sequences are GC given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are GC given in AAB40067. Perimers used in the identification and CC construction of the antibodies of the invention are given in AAB40067. The antibody of the invention is a neutralising CC antibody and has antirheumatic; antiarthritic; antiasthmatic; CC antibody and has antirheumatic; antiarthritic; antiasthmatic; CC antibodies or antigen-binding fragments are useful in the treatment CC of disorders associated with detrimental release of human IL-12, GC especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. CC They can balso be used in the manufacture of a pharmaceutical composition
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Derbyshire EJ, Carmen S,
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Carmen S, Smith S, Hol
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Banerjee S, Tracey DE,
fas P, Friedrich S, My
Widom A, Elvin JG, D
Holtet TL, Du Fou SL;
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cc anti-IL-12 antibody heavy and light chain complementarity determining cregion (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences other carriable region amino acid sequences action amino acid sequences according to the complementarity. Bayson and Aba40068-B40149. Sequences Aba39561-B39771 crepresent anti-IL-12 CDR3 related amino acid sequences, Aba39572-B40063 crepresent other CDR sequences. Light chain CDR3 consensus sequences are cylone in Aba40067. Primers used in the identification and construction of the antibodies of the invention are given in AAC61062-C61071. The antibody of the invention is a neutralising cantibody and has antirheumatic; antipsoriatic; antisclerotic; antilinfiammatory; neuroprotective; antipsoriatic; antisclerotic; antilinfiammatory; neuroprotective; antipsoriatic; antischematic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. CC The antibodies or antigen-binding fragments are useful in the treatment cof discorders associated with detrimental release of human IL-12, capacity crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition contents the composition contents are according to the manufacture of a pharmaceutical composition contents the contents the composition contents the contents the contents the contents the composition contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents the contents 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 75; Page 121; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kaymakcalan Z, Labkov
Veldman GM, Venturini
Derbyshire EJ, Carmen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; neutralising antibody; interleukin-12;
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GENETICS INST INC.
                                                      human IL-12 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  multiple sclerosis
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Z, Labkovsky B, Sakorafas P, Friedrich S, My
Venturini A, Warne NW, Widom A, Elvin JG, D
MJ, Carmen S, Smith S, Holtet TL, Du Fou SL;
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                                                                                                  arthritis.
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The present sequence represents the light chain variable region of CC human antibody 10D1. This antibody specifically binds to human CC cytotoxic T lymphocyte associated antigen 4 (CTLA-4). Such antibodies CC are used in methods for inducing, augmenting or prolonging an immune CC response to an antigen in a patient, where the antibodies block CC binding of human CTLA-4 to human B7 ligands. The antibodies are CC also useful for treating autoimmune disease in a subject caused or CC exacerbated by increased activity of T cells and for treating prostate CC cancer, melanoma or epithelial cancer. A polyvalent or polycional CC exacerbated to comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for CC treating cancer, infectious diseases and promoting beneficial autoimmune CC treating autoimmune diseases with inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia CC dishere melitine translant response is sclerosis, insulin-dependent cf dishere melitine translant response in the inflammatory or allergic components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia CC dishere melitine translant response in fifteentic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human sequence antibody that binds to human cytotoxic T lymphocyte associated antigen-4, useful for inducing, augmenting or prolonging immune response to antigen or for suppressing immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Complementarity determining region; CDR; immune response; antibody; cytotoxic T lymphocyte associated antigen-4; CTLA-4; B7 ligand; cancer autoimmune disease; infectious disease; inflammation; allergy; rheumatoid arthritis; myasthenia gravis; lupus erythematosus; multiple sclerosis; insulin-dependent diabetes mellitus; inflammation; transplant rejection; graft versus host disease.
                                                                                                                                                                                                                                                                                                                                                                                                    Example 3; Fig 7; 127pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                             response in
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                                                mellitus, transplant rejection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                           patient
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Best Local
The present sequence represents the heavy chain variable region of human antibody 3-30.3. This antibody specifically binds to human cytotoxic T lymphocyte associated antigen-4 (CTLA-4). Such antibodies are used in methods for inducing, augmenting or prolonging an immune response to an antigen in a patient, where the antibodies block binding of human CTLA-4 to human B7 ligands. The antibodies are also useful for treating autoimmune disease in a subject caused or exacerbated by increased activity of T cells and for treating prostate cancer, melanoma or epithelial cancer. A polyvalent or polyclonal antibody preparation comprising two antibodies of the invention are useful for suppressing a immune response in a patient. They are used for treating cancer, infectious diseases and promoting beneficial autoimmune reactions for the treatment of diseases with inflammatory or allergic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human sequence antibody that binds to human cytotoxic lymphocyte associated antigen-4, useful for inducing, augment prolonging immune response to antigen or for suppressing immune response in patient
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-202933/20
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ilarity 100.0%;
Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note= "CDR2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98
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Pred. No. 1.9e-41;
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            components. The polyvalent or polyclonal preparations are useful for treating autoimmune diseases such as rheumatoid arthritis, myasthenia gravis and lupus erythematosus, multiple sclerosis, insulin-dependent diabetes mellitus, transplant rejection, and inflammation, graft vers
                                                                07-AUG-2000; 2000US-223360P
29-SEP-2000; 2000US-236826P
01-AUG-2001; 2001US-0920137
                                                                                                                                                                                                                                                                                                                                                                                                                       antiatherosclerotic; vasotropic; antianginal; cardiant;
antibacterial; virucide; fungicide; antileprotic; proto
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour necrosis factor alpha; TNF; antibody; heavy chain; CDR; complementarity determining region; antirheumatic; antiarthritic; antiulcer; antiasthmatic; antiallergic; antiinflammatory;
                    Giles-Komar J,
                                                                                                              07-AUG-2001; 2001WO-US24785
                                                                                                                                                            WO200212502-A2.
                                                                                                                                                                                              Region
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                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Anti-tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                            (CENZ ) CENTOCOR
                                                                                                                                      14-FEB-2002.
                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                diagnosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                            antisickling; antidiabetic; antiarteriosclerotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAM51164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAM51164 standard; Protein; 115 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
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                    Knight
                                                                                                                                                                                                 108.
                                                                                                                                                                                                                     /label= FR3
99..107
                                                                                                                                                                                                           /label= CDR3
                                                                                                                                                                                                                                                                                                                                                   location/Qualifiers
                                                                                                                                                                                    /label= J6
                                                                                                                                                                                                                                                                                                    'label= CDR
                                                                                                                                                                                                                                                                                                                           'label= FR1
                                                                                                                                                                                                                                                       label= CDR2
                                                                                                                                                                                                                                                                               label= FR2
                                                                                                                                                                                               . . 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       factor antibody heavy chain variable
                     DM.
                     Heavner G,
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                                                                                                                                                                                                                                                                                                                                                                                                           antiparkinsonian;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 512; DB 22;
Pred. No. 1.9e-41;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                         antileprotic; protozoacide; rkinsonian; nootropic; human;
                     Scallon
                    8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     region.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                versus
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and Creutzfeldt-Jakob

disease.

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CC transgenic animals, transgenic plants, and methods of making and computed them. The anti-TNF antibody comprises at least a portion of CC an immunoglobulin molecule, especially the heavy chain and/or light Chain variable regions given in the present sequence and in AMS1165, or either all of the CDRs of the light chain (see AAMS1165) or all of the CDRs of the light chain (see AAMS1165) or all of the CDRs of the light chain (see AAMS1165) or an animal composition of the light chain (see AAMS1165) or all of the CDRs of the light chain (see AAMS1165). The antibody may inhibit TNF-induced cell adhesion molecules, comprovement in a mouse model. It is useful for diagnosing or animal comprovement in a mouse model. It is useful for diagnosing or animal comprovement in a mouse model. It is useful for diagnosing or allergic rhinitis, Crohn's pathology, sickle cell anaemia, diabetes, a cardiovascular disease such as arteriosclerosis, atherosclerosis, composition of a cell such as bacterial, viral, and fungal infectious compositions, chronic myelocytic laukaemia, Burkitt's lymphoma and complete myeloma, or a neurological disease such as multiple sclerosis, Parkinson's disease, spinal ataxia, Alzheimer's disease con and CC and Creutzfeldt-Jakob disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vuk, granted anti-TNF antibodies, immunoglobulins, cleavage products and other specified portions and variants, as well as anti-TNF antibody compositions, encoding or complementary nucleic acids, vectors has calls commonly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention provides isolated human, primate, rodent, mammal chimeric, humanised and/or complementarity determining region (CDR)-grafted anti-TNF antibodies, immunoglobulins, cleavage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       acids, vectors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            an anti-tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel isolated mammalian anti-tumor necrosis factor antibody, useful for treating sickle cell anemia, diabetes, atherosclerosis, restenosis, angina pectoris, myocardial infarction, leprosy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 129; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence is that of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          necrosis factor (TNF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     host cells, compositions,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          formulations,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      variable
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            devices
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mammalian,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 region of
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밁 밁 S 5 Query Match Best Local S Matches 98 Sequence 61 61 1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY Similarity ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 115 Conservative A 100.0%; o ; Score 512; DB 23; Pred. No. 2.2e-41; Mismatches 98 98 Length 115; Indels 0, 60 60 0

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RESULT 12
AAM51167
ID AAM51
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                                                                                                                                                                            Tumour necrosis factor alpha; TNF; antibody; heavy chain; CDR; complementarity determining region; antirheumatic; antiarthritic; antiulcer; antiasthmatic; antiallergic; antiinflammatory;
                                                                                                                                      antisickling; antidiabetic; antiarteriosclerotic;
antiatherosclerotic; vasotropic; antianginal; car
                                                                                               antibacterial; virucide; fungicide; cytostatic; neuroprotective; antipar
                                                                                                                                                                                                                                                             Human DP-46
                                                                                                                                                                                                                                                                                                  10-JUN-2002
                                                                                                                                                                                                                                                                                                                                         AAM51167;
                                                                                                                                                                                                                                                                                                                                                                                 AAM51167
                                                                            diagnosis; therapy;
                                                                                                                                                                                                                                                                                                                                                                               standard; Protein; 118 AA.
                                                                            neuroprotective;
therapy; DP-46.
                                                                                                                                                                                                                                                          heavy chain variable region
                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                 antiparkinsonian; nootropic; human;
                                                                                                     antileprotic; protorkingon;
                                                                                                                      protozoacide;
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Homo

sapiens

Location/Qualifiers

ZZ

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Chain variable regions given in the present sequence and in AAM51165, or either all of the CDRs of the heavy chain (see AAM51158-60) or all of the CDRs of the light chain (see AAM51158-60) or all of the CDRs of the light chain (see AAM51161-63). The antibodies may inhibit TNF-induced cell adhesion molecules, comprovement in a mouse model. They are useful for diagnosing or creating a TNF related condition in a cell, tissue, organ or animal collatined) such as rheumatoid arthritis, gastric ulcer, asthma, compared to the condition of a cell, tissue, organ or animal collatined) such as rheumatoid arthritis, gastric ulcer, asthma, compared to the condition of a cell anaemia, diabetes, compared to the condition of a cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, chronic myelocytic leukaemia, Burkitt's lymphoma and compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia, diabetes, compared to the cell anaemia and cell to the cell anaemia and cell to the cell anaemia and cell to the cell anaemia and cell to the cell anaemia and cell to the cell anaemia and cell to the cell anaemia and cell to the cell anaemia and cell to the cell anaemi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 deduced ami
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 anti-TNF antibody compositions, encoding or complementary nucleic acids, vectors, host cells, compositions, formulations, devices, transgenic animals, transgenic plants, and methods of making and using them. The anti-TNF antibody comprises at least a portion of an immunoglobulin molecule, especially the heavy chain and/or light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human, primate, rodent, mammalian, chimeric, humanised and/or complementarity determining region (CDR)-grafted anti-TNF antibodies, immunoglobulins, and cleavage products and variants, as well as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TNF alpha with apparently high avidity. These mads had a cou-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is that of a human DP-46 heavy region encoded by a human germline DP-46 gene in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-AUG-2000; 2000US-223360P
29-SEP-2000; 2000US-236826P
01-AUG-2001; 2001US-0920137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           deduced amino acid sequences (see AAMS1168-72) showed high similarity to the DP-46 sequence. The invention provides isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            that was immunised with recombinant human tumour necrosis factor (TNF) alpha. Human mabs were obtained that bound immobilised human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      used in human monoclonal antibody (mAb) construction. A GenTNV fusion was performed using spleen cells from a hybrid mouse containing human variable and constant region antibody transgenes that was immuniced with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 3; Fig 4; 131pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                angina pectoris, myocardial infarction,
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on. A GenTNV
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Modification of a rodent antibody (Ab) or fragment by resurfacing in order to produce a humanised rodent Ab can be determined by calculating homology between murine and human Ab antibody surfaces. In order to test

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RESULT 13
AAR52064
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Best Local (
                                                                       Method of resurfacing of rodent antibodies to produce humanised antibody forms - for producing non-human antibodies with improved therapeutic efficiency by presenting human surface on V-region
                                             Example 1; Fig 4B; 230pp; English
                                                                                                                                                            Guild BC, Pedersen JT,
                                                                                                                                                                                                                                                                                                                   EP592106-A1.
                                                                                                                                    WPI; 1994-120230/15.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antibody; humanised; murine; human; heavy chain; light; variable; framework region; complementarity determining region; reshaping; modelling; surface residue; modify.
                                                                                                                                                                                         (PEDE/) PEDERSEN J T. (IMMU-) IMMUNOGEN INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 512; DB 23; ilarity 100.0%; Pred. No. 2.3e-41; Conservative 0; Mismatches 0;
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'note= "FR 1"
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note= "CDR 1"
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QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY

Matches Query Match Best Local

98;

Conservative

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Score 512; DB 15; Pred. No. 2.3e-41; ; Mismatches 0;

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the resurfacing approach of the invention, three humanisation experiments were set up: (1) traditional loop grafting; (2) resurfacing approach using most similar chain; and (3) resurfacing approach using human sequences with most similar surface residues. The Ab used was the murine anti-N901 Ab (see AAR52064). Experiment 2 was carried out using the present sequence which represents the human AAG36005 Ab heavy chain variable region with 89 percent homology with anti-N901 Ab. N901/AAG36005 (AAR52065) was propd. by CDR grafting. Sequence numbering starts at 118 in the specification.

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                        This invention describes novel antibodies that immunospecifically B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of t tumour necrosis factor (TNF) super family and induces B cell proliferation and differentiation. The antibodies of the inventior
                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-JUN-2000; 2000US-212210P.
17-OCT-2000; 2000US-240B16P.
16-MAR-2001; 2001US-276248P.
21-MAR-2001; 2001US-277379P.
25-MAY-2001; 2001US-293499P.
                                                                                                                                                                                                                                   Antibodies against B Lymphocyte the diagnosis and treatment of o
                                                                                                                                                                                                                                                                                                                                                                                                                                            (CAMB-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLy8; B lymphocyte stimulator; TNF superfamily; human; cytostatic; tumour necrosis factor; B cell proliferation; B cell differentiation; immunosuppressive; immunostimulant; immunomodulatory; antirheumatic; antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-AUG-2002
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CAMBRIDGE ANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; Protein; 247
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                                                                                                                                                                                                                                      cancers
                                                                                                                                                                                                                                                            Stimulating
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                                                                                                                                                                                                                                   immune disorders -
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s of the invention have immunomodulatory,
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RESULT 15
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23-JUN-2000; 2000US-213466P.
27-JUN-2000; 2000US-214601P.
31-JUL-2000; 2000US-222372P.
08-SEP-2000; 2000US-231435P.
15-SEP-2000; 2000US-232889P.
                                                                     Ramkumar J,
Azimzai Y,
                                                                                                   Hillman
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; SECP; antiinflammatory; cytostatic; cardiant; immunosuppressive; antiviral; anti-HIV; antiarthritic; antirheumatic muscular active general; anticonvulsant; nootropic; neuroprotective; antiallergic; hypotensive; cardiovascular disorder; atherosclerosis; hypotensive; cardiovascular disorder; atherosclerosis; hypertension; myocardial infarction; autoimmune disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antirheumatic and antiAIDS activity and can be used in vaccines to inhibit the expression and activity of BLyS. The antibodies bind to BLyS and so may be used to detect and quantitate the presence of BLyS in biological samples and may be used in this way to diagnose disease associated with aberrant expression of BLyS. They may also be administered to treat disease associated with aberrant BLyS expression and activity such as cancer, immune, and autoimmune disorders and
                                                        Walia
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                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                           inflammatory disorder; AIDS; acquired immunodeficiency syndrome; allergy; rheumatoid arthritis; cell proliferative disorder; canc developmental disorder; Duchenne muscular dystrophy;
                                                                                                                                                                                                                                                                      20-JUN-2001; 2001WO-US19862
                                                                                                                                                                                                                                                                                                                                  WO200198353-A2
                                                                                                                                                                                                                                                                                                                                                                                           neurological disorder; epilepsy; Alzheimer's
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                                                                                                                                   (INCY-) INCYTE GENOMICS INC.
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J, Lal P, 3
Batra S,
Gandhi AR,
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                                                       YT, Yue H,
P, Xu Y, Warren BA,
a S, Burford N, Yao
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restil in the diagnosis, treatment and prevention of cardiovascular (e.g. atherosclerosis), autoimmune/inflammatory (e.g. allergies) and cell proliferative disorders - x

Claim 1; Page 142-143; 195pp; English.

Claim 1; Page 142-143; 195pp; English.

Claim 1; Page 142-143; 195pp; English.

Claim 1; Page 142-143; 195pp; English.

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Search completed: June 3, 2003, 08:14:46 Job time: 45.1502 secs

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61 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98

ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 117

20 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 79

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12_6/ptodata/1/pubpaa/USOS_NEW_PUB.pep: *
112_6/ptodata/1/pubpaa/USOS_NEW_PUB.pep: *
112_6/ptodata/1/pubpaa/USIO_PUBCOMB.pep: *
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US-10-153-382-17

US-09-880-748-1330

US-09-880-748-1330

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Publication No. US20030039649A1
GENERAL INFORMATION:
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ALIGNMENTS

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US-09-880-748-924
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; SEQ ID NO 24
; LENGTH: 98
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-194-975-24
                                                                                Publication No. US20
GENERAL INFORMATION:
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Best Local Similarity
                   APPLICANT: Ruben et al.
TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
FILE REFERENCE: PF523
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PRIOR APPLICATION NUMBER: US 60/305,111
PRIOR FILING DATE: 2001-07-12
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CURRENT FILING DATE: 2002-10-10
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TITLE OF INVENTION: Super Humanized Antibodies
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APPLICATION NUMBER: US/09/880,748
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                                                                                                   Application US/09880748
o. US20030059937A1
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Pred. No. 2.6e-33;
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US-09-880-748-1731
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-09-880-748-924
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CURRENT FILING DATE: 2001-06-15
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RIOR APPLICATION NUMBER: 60/212,210
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FILING DATE: 2001-03-21
APPLICATION NUMBER: 60/293,499
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APPLICATION NUMBER: 60/276,248
FILING DATE: 2001-03-16
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                                                                                                                                            al Similarity 99.0
97; Conservative
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Similarity 100.0%;
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                             ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
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ADSVKGRFTISRDNSKWTLYLQMNSLRAEDTAVYYCAR 98
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                                                                                                                                     Score 508; DB 9; Length 252;
Pred. No. 1.3e-32;
0; Mismatches 1; Indels
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Pred. No. 6.2e-33;
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US-09-880-748-983
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                                                                                                                                                    Matches
                                                                                                                                                                   Best Local
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Best Local :
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PRIOR FILING DATE: 2001-07-12
NUMBER OF SEQ ID NOS: 122
                                                                                                                                                                                                                                                          LENGTH: 98
TYPE: PRT
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CURRENT FILING DATE: 2002-10-10
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TITLE OF INVENTION: Super Humanized Antibodies
FILE REFERENCE: 501231.01
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PRIOR FILING DATE: 2001-03-21
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                                  61 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
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                                                                                            1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY
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ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAK 98
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Pred. No. 9.1e-33;
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Pred. No. 1.9e-32;
0; Mismatches 1
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Publication No.
                                                                                                                                                                                                                                                                 -09-144-886-69
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CURRENT APPLICATION NUMBER: US/09/144,886
CURRENT FILING DATE: 1998-08-31
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SOFTWARE: PATENTIN VET. 2.0
EQ ID NO 69
LENGTH: 122
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10-194-975-25
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PRIOR FILING DATE: 2001-07-12
NUMBER OF SEQ ID NOS: 122
SOFTWARE: Patentin version 3.1
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                                                                                                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: BONT/A clone OTHER INFORMATION: 1C6 region VH epitope 3
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PPLICANT: Amersdorfer, Peter
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                                        61 ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
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Similarity 96.9%;
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Similarity 98.0%;
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ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
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Pred. No. 9.1e-33;
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US-09-880-748-1627 ; Sequence 1627, Application US/09880748

RESULT 8

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US-09-880-748-1627
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PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 60/240,816
PRIOR FILING DATE: 2000-10-17
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CURRENT FILING DATE: 2001-06-15
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PRIOR FILING DATE: 2000-06-16
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CURRENT FILING DATE: 2001-06-15
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TILE OF INVENTION: Antibodies that Immunospecifically Bind BLYS
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APPLICATION NUMBER: 60/276,248
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Pred. No. 2.2e-32;
1; Mismatches 1
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Pred. No. 2.6e-32;
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JS-10-194-975-26
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                                                                                                                                                 Matches
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SEQ ID NO 26
LENGTH: 98
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Best Local (
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SEQ ID NO 68
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                                                                                                                                                                                                                                                                                                                           PILE REFERENCE: 501231.01
CURRENT APPLICATION NUMBER: US/10/194,975
CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: US 60/305,111
PRIOR PILING DATE: 2001-07-12
NUMBER OF SEQ ID NOS: 122
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SUBSIGNATION:
SENERAL INFORMATION:
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CURRENT FILING DATE: 1998-08-31
NUMBER OF SEQ ID NOS: 98
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ORGANISM: Artificial Sequence
FEATURE:
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APPLICANT: Amersdorfer, Peter
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                                                                                                                                                                  Local
                      .61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR 98
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98.0%;
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                                                                                                                                                          Score 501; DB 9;
Pred. No. 1.9e-32;
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Pred. No. 1.6e-32;
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                                                                                                                                         2; Indels
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US-09-880-748-512
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US-09-880-748-512
                                                       Matches
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Best Local (
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SEQ ID NO 17
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Best Local 9
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                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/293042 PRIOR FILING DATE: 2001-05-23
                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 39
                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/153,382
CURRENT FILING DATE: 2002-05-22
                                                                                                                                                                                                                                                                                                                    APPLICANT: PFIZER PRODUCTS INC.
TITLE OF INVENTION: USES OF ANTI-CTLA-4 ANTIBODIES
FILE REFERENCE: PC23019A
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CURRENT APPLICATION NUMBER: US/09/880,748
CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/212,210
                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
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                                                                                                                                                                         LENGTH: 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/240,816
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les 95; Conservative
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                                                       96
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                                                                      Similarity
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QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
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                                                                                                                                                                                                                                                                                                                                                                                                        Application US/10153382
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98.0%;
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                                            Score 501; DB 9;
Pred. No. 7.8e-32;
0; Mismatches 2
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Pred. No. 4.5e-32;
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ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR 98

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; ORGANISM: Homo sapiens
US-09-880-748-1330
        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens -09-880-748-2055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -09-880-748-1330
                                                                                                                                                                                                                                                                                                                                                          PLICANT: Ruben et al.
(TILE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
(LE REFERENCE: PF523
JERENT APPLICATION NUMBER: US/09/880,748
JERENT FILING DATE: 2001-06-15
JERENT FILING DATE: 2001-06-15
JOR APPLICATION NUMBER: 60/212,210
                                                                                                                         TWARE: PatentIn Ver. 2.0
ID NO 1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       uence 1330, Application US/09880748
lication No. US20030059937A1
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E REFERENCE: PF523
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                                                                                                                                                                                          APPLICATION NUMBER: 60/293,499 FILING DATE: 2001-05-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/212,210 FILING DATE: 2000-06-15
                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/276,248 FILING DATE: 2001-03-16 APPLICATION NUMBER: 60/277,379
                                                                                                                                                                                                                                 FILING DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                               FILING DATE: 2000-06
APPLICATION NUMBER:
FILING DATE: 2000-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLICATION NUMBER: 60/240,816
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Pred. No. 6.2e-32;
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DB 9;

Length 247;

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                                                                                                                                             Best Local Similarity Matches 95; Conserv
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                                                                                                   QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAK 98
                               ADSVKGRFTISRDNSKNTLYLOMNSLRAEDTAVYYCAR 98
                                                                   QVQLQESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60
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Search completed: June 3, 2003, 08:52:53 Job time: 24.2457 secs

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Listing first 45 summaries
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Copyright (c) 1993 - 2003 Compugen Ltd.
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                                                                    US-08-211-202-118
US-08-331-398-45
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US-08-258-607-815
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US-08-211-202-135
US-08-210-202-125
US-08-210-204-21-26
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90.2	90.2	90.6	90.6	90.8	90.8	90.8	90.8	91.6	91.6	92.0	92.1	92.6	93.0	93.0	93.0	93.0	93.0
122	113	304	287	125	125	124	124	126	125	128	126	126	141	141	126	125	125
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ALIGNMENTS

APPLICANT: HOOGRNBOOM, Hendricus Renerus Jacobus Matteus APPLICANT: BAIER, Michael
APPLICANT: JESPERS, Laurent Stephane Anne Therese APPLICANT: WINTER, Gregory Paul
TITLE OF INVENTION: production of chimeric antibodies -

NAME: David W. Clough REGISTRATION NUMBER: 36,107 REFERENCE/DOCKET NUMBER: 28111/31960 TELECOMMUNICATION INFORMATION: TELEPHONE: 312-474-6300	21 2	10 A 10 A	APPLICATION UNMER: US/08/211,202 FILING DATE: 23-SEP-1992 CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION UNMBER: GB 9120252.3 FILING DATE: 23-SEP-1991 PRIOR APPLICATION DATA: PRIOR APPLICATION DATA:	STATE: CHICAGO STATE: Illinois COUNTRY: USA ZIP: 60606-6402 COMPUTER READABLE FORM: MEDLUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 (EPO)	1 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

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                                                                                                                               US-08-545-809A-115
                                                                                                Patent No. 6096878
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                                                APPLICANT:
APPLICANT:
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PRIOR APPLICATION DATA:
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                  ITLE OF INVENTION:
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                                    TLE OF INVENTION:
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OTHER INFORMATION:
OTHER INFORMATION:
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US U. PITTING DATE: 30-SEP-1991
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                                                                             INFORMATION:
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                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                             Application US/08545809A
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Steuart Street Tower, One Market Plaza
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Fumihiko
HUMAN IMMUNOGLOBULIN VH GENE
SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
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56Pl'CL VH region"
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Pred. No. 2e-47;
1; Mismatches
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US-08-545-809A-115
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Best Local Similarity
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                                                                                                      STREET: Chicago
CITY: Chicago
Illinois
                                                                                                                                                                                                                                                                                                                                                                   tent No.
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                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
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LENGTH: 117 amino acids
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PRIOR APPLICATION MIMBER: PCT/JP93/00603
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MEDIUM TYPE: Diskette
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING PATENTIN Release #1.0
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OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version
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STREET: 225 Franklin Street
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PILING DATE: 10-MAY-1993
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                                                                   60606-6402
R READABLE FORM:
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                                                                                                                                                                                                                                                                                                                             HOOGENBOOM, Hendricus Renerus Jacobus Matteus
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99.0%;
                                                                                                                                                                                                                                                          Production of
                                                                                                                                                                                                                                                                                            Laurent Stephane Anne Therese
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Pred. No.
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     #1.0,
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   Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 117;
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URRENT APPLICATION DATA:

ION NUMBER:

US/08/211,202

23-SEP-1992

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US-08-983-607-38
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 116 amino acid
                                                                            ZIP: 06520-8114
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" 1.44 Mb diskette
                                                                                                                                                                                                                                                                                                                                            ent No.
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TELECOMMUNICATION INFORMATION:
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FILING DATE: 23-SEP-1991
IOR APPLICATION DATA:
APPLICATION NUMBER: GB 9
                                                                                                                                COUNTRY:
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                                                                                                                                              Connecticut
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                                                                                                                                                                             266 Whitney Avenue
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VENTION: Human Anti-Tumor Monoclonal Anti-
                                                                                                                             United States of America
                                                                                                                                                                                                                                                                                                             Alan Garen
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                                                                IBM PC
                                                                                                                                                                                          Department of Molecular Biophysics and Biochemistry, Yale University
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24-MAR-1992
US/08/983,607
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US-08-211-202-135
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Best Local Similarity
           COUNTAL
ZIP: 60606-64v.
ZIP: 60606-64v.
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
PC-DOS/MS-DOS
MS-DOS
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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NAME/KEY:
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APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MMEDIATE SOURCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DRRESPONDENCE ADDRESS:
OPERATING SYSTEM: PC-DOS/MS-DUS
SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LIBRARY: DM414 scFv antibodies obtained from LIBRARY: fUSE5 fusion phage construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: April 27, 1998
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
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o. 5565332
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                                                                                                                                                                                                                                                                              Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                     6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JESPERS, Laurent Stephane Anne Therese WINTER, Gregory Paul
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99.0%;
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Pred. No. 1.3e-46;
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; MOLECULE TYPE: protein US-08-211-202-135
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Best Local (
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                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                ent No.
                            SOPTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
APPLICATION NUMBER
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REOR APPLICATION DATA
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PILING DATE: 25-SEP-
PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                    COMPUTER: IBM CON
OPERATING SYSTEM:
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                                                                                                                                                COUNTRY:
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LECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
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FILING DATE: 15-MAY-1992
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93; Conservative
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               27-MAR-1996
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                          US/08/545,809A
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Pred. No. 2.8e-45;
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RESULT 12
US-09-025-769B-24
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               NFORMATION FOR SEQ ID NO: 24:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                itent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
SEQUENCE CHARACTERISTICS:
                                                                                                                               APPLICATION NUMBER: EP 95 11 3021.0 FILING DATE: 18-AUG-1995 ATTORNEY/AGENT INFORMATION:
                                                                TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
                                                                                                                                                                               FILING DATE: 18-FEB-1998 PRIOR APPLICATION DATA:
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                                                                                   REFERENCE/DOCKET NUMBER:
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                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                APPLICATION NUMBER:
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LECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
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EGISTRATION NUMBER:
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New York
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                                                                                        James F. Haley, JI.,
James F. Haley, JI.,
Mr. WIMBER: 27,794
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Plueckthun, Andreas
INVENTION: Protein/(Poly)peptide libraries
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                                                                                                                                                                                                                                                                                                Floppy disk
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94.9%;
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                                                                                                           Esq.
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Pred. No. 4.5e-45
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RESULT 13
US-09-240-274-26
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JS-09-240-274-26
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Best Local Similarity
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CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1996-10-11
NUMBER OF SEQ ID NOS: 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENERAL INFORMATION:
APPLICANT: Siegel,
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atent No. 6255455
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TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
TOPOLOGY: 111
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPLICANT: Siegel, Donald L.
ITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
ITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
ILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                                ent No.
                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                             NERAL INFORMATION:
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nes 92; Conservative
                                                          ADDRESSEE:
                                                                                                 E OF INVENTION: Apo-2 Receptor
SER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                          61 SDSVKGRFTISRDNSKNTLYLQMDSLRAEDTAVYYCAR 98
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                   South San Francisco
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                                    E: Genentech, Inc.
1 DNA Way
                                                                                                                                        Kim, Kyung J.
                                                                                                                                                                               Adams, Camilia W.
Ashkenazi, Avi J.
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91.8%;
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93.98;
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Pred. No. 5.7e-45;
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Pred. No. 1.7e-44;
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                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, V.
CURRENT APPLICATION DATA:
APPLICATION UNMER: US/08/478,039
EILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 atent No. 5681722
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO:
                                                                                     APPLICATION NUMBER: US 08/379,072 FILING DATE: 25-JAN-1995 FRIOR APPLICATION DATA:
FILING DATE: 10-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 23-MAR-1992
                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 310 amino acid
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REGISTRATION NUMBER: 35,600
REFERENCE/DOCKET NUMBER: P1
TELECOMMUNICATION INFORMATION:
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                                                                    APPLICATION NUMBER:
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Local Similarity 93.9%;
es 92; Conservarion
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SOFTWARE: WinPatin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                       CITY: Alexandria
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Amino Acid
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Raab, Ronald W.
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YSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Roland A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Recombinant Antibodies for Human Therapy
                                                                                                                                                                                                  US/08/478,039
                                                                      US 07/912,292
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Pred. No. 4.7e-44;
1; Mismatches 5;
                                                                                                                                                                                                                                      Version #1.30
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Search completed: June 3, 2003, 08:24:17 Job time: 15.884 secs
                                                                                                                      Query Match 93.9%; Score 481; DB 1; Length 128; Best Local Similarity 94.9%; Pred. No. 2.2e-44; Matches 93; Conservative 1; Mismatches 4; Indels
                                      61 ADSVKGRFTISRDDSKNTLSLOMNSLRAEDTAVYYCAR 98
                                                  61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR 98
                                                                                              1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60
                                                                            0; Gaps
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